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CHILDHOOD ACCIDENTS AND INJURIES

HEARING
BEFORE THE
SUBCOMMITTEE ON
CHILDREN, FAMILY, DRUGS AND ALCOHOLISM
OF THE
COMMITTEE ON
LABOR AND HUMAN RESOURCES
UNITED STATES SENATE
ONE HUNDRED FIRST CONGRESS
FIRST SESSION
ON
EXAMINING THE FREQUENCY, SERIOUSNESS, AND PREVENTION OF
CHILDHOOD ACCIDENTS AND INJURIES

FEBRUARY 9, 1989



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CONTENTS

STATEMENTS

THURSDAY, FEBRUARY 19, 1989

	Page
Dunning, James, parent, Alexandria, VA; Judith Randlett, parent, Sandy Hook, CT, accompanied by Christopher Clark; Michael Kurgan, parent, Herndon, VA, accompanied by Matthew Kurgan; and Marilyn Adams, parent, Earlham, IA	46
Prepared statements of:	
Mr. Dunning.....	48
Ms. Randlett.....	53
Mr. Kurgan.....	57
Ms. Adams	63
Florio, Hon. James J., a Representative in Congress from the State of New Jersey	37
Prepared statement	43
Graham, Hon. Anne, Commissioner and Acting Chair, Consumer Product Safety Commission, Washington, DC; Martin R. Eichelberger, M.D., Director of Trauma Services, Children's Hospital, Washington, DC, and Chairman, National Safe Kids Campaign, Mark D. Widome, M.D., Chairman Committee on Accident and Poison Prevention, American Academy of Pediatrics, Hershey, PA; and Susan S. Gallagher, Director, Childhood Injury Prevention Resource Center, Harvard University School of Public Health, Boston, MA	71
Prepared statement of:	
Ms. Graham.....	74
Dr. Eichelberger, with an attachment	81
Dr. Widome.....	100
Ms. Gallagher.....	119
Hatch, Hon. Orrin G., prepared statement.....	3
Koop, C. Everett, M.D., Surgeon General, U.S. Public Health Service, Department of Health and Human Services; accompanied by Vernon N. Houk, Director, Center for Environmental Health and Injury Control	6
Prepared statement	17
Articles, publications, etc.:	
National Institute of Child Health and Human Development, Research Toward Prevention of Childhood Injuries.....	10
Preventable Excess Childhood Injury Mortality, United States, 1985.....	23
Comments on S. 407 by C. Everett Koop	33
Communications to: Dodd, Hon. Christopher J., from David L. Heidorn, J.D., American Medical Association (with attachments).....	136
Questions and answers: Responses of Dr. Koop to questions submitted by Senator Hatch.....	133

CHILDHOOD ACCIDENTS AND INJURIES

THURSDAY, FEBRUARY 9, 1989

U.S. SENATE,
SUBCOMMITTEE ON CHILDREN, FAMILY,
DRUGS AND ALCOHOLISM,
COMMITTEE ON LABOR AND HUMAN RESOURCES,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:35 a.m., in Room SD-430, Dirksen Senate Office Building, Senator Christopher J. Dodd, (chairman of the subcommittee) presiding.

Present: Senators Dodd and Harkin.

OPENING STATEMENT OF SENATOR DODD

Senator DODD. Welcome to the Subcommittee on Children, Family, Drugs and Alcoholism and the first Senate hearing ever, I might add, on childhood accidents and injuries. Today's hearing is the first of several events taking place over the next few days to commemorate National Safe Kids Week, which runs from February 12th through the 18th.

If you ask parents what is the most serious threat to your child's health, I presume, as most of you would, the answer would be drugs or kidnapping. Few parents know that preventable accidents and injuries are the number one cause of death for children each year. After one year of age, more children die from injuries than from all diseases combined.

Epidemic. We usually use the word to describe the terrible diseases of our time—cholera before the 1850s, polio in the first half of this century, AIDS today. But as the Surgeon General and others will tell us this morning, childhood injury is no less a threat to society than any of these diseases.

Each year, 8,000 children in this country die and 100,000 are disabled; 19 million require medical treatment. Injuries kill six times as many children as cancer, the second leading cause of childhood death. It is epidemic. It is a word we take seriously, and this Nation had better get serious about this number one killer.

Strangely enough, these are not freak accidents which no one can predict. The killers are as common as the family car, a child's bicycle, the toy that their grandparents brought for Christmas, or the hot water faucet in the upstairs bathroom.

But like most epidemic diseases throughout history, our best weapons against this epidemic are prevention and education. The National Safe Kids Campaign, led by Children's Hospital, Johnson and Johnson, and the National Safety Council, has shown that a public-private partnership can produce results.

Stop Childhood Accidents Now, using the tremendous pool of talent based at the Bush Center on Child Development in Connecticut, is generating new scientific research aimed at accident prevention.

Today, all 50 States have child restraint laws for motor vehicles. The Gas Appliance Manufacturers Association recently agreed to preset hot water heaters to avoid scalding injuries to children, and fire prevention and bicycle safety programs have sprung up across the Nation. We are starting to see the results.

But we still have a long way to go. We need to educate Americans about injury prevention and learn to design human environments to minimize these risks. We need to expand and coordinate State and local injury prevention programs and train many more prevention specialists. We need to build a research base in epidemiology and prevention strategies and improve our data collection systems. Working together, I believe that we can make a difference.

I will be introducing today legislation which I hope will make a difference in one specific area, toy safety. Each year, almost 300 children die from choking, mostly on small parts either from toys or other household items.

This proposal, sponsored by my good friend and colleague, Sam Gejdenson, in the House of Representatives, would require a Consumer Product Safety Commission warning label program for all toys which contain small parts.

The label would state the minimum age of children for which the toy is intended, a statement of the toy's harmful properties, and the potential consequences of its use by children below the minimum age.

This bill has been developed in consultation, with the Connecticut Commissioner on Consumer Protection and the American Academy of Pediatrics, to whom I am very grateful.

We look forward to working closely with Commissioner Anne Graham and her CPSC colleagues to see if, together, we can deal quickly with one cause of injury which is easily preventable.

Childhood accidents and injuries; this is an epidemic that the Federal Government can't solve alone. We need to involve public officials at the State and local level, the media, educators, and our best medical and scientific personnel.

Most of all, we need to involve the American people. As parents, as aunts and uncles, as family members, Americans need to know more about how common accidents and injuries can be prevented. I hope today's hearing will set the stage for a national awareness campaign that will make a difference in the lives of thousands of children across this country.

We have a statement from Senator Hatch which we will include in the record at this point.

[The prepared statement of Senator Hatch follows:]

**CHILDHOOD ACCIDENTS AND INJURIES
SUBCOMMITTEE ON CHILDREN, FAMILY, AND DRUGS AND
ALCOHOLISM
FEBRUARY 9, 1989**

Mr. Chairman, I am pleased to be here this morning as this subcommittee continues to look at the issue of childhood accidents and injuries. With an estimated 28,000 children and teenagers losing their lives each year due to accidents, suicides, and homicides, there is clearly more which needs to be done. In my own state of Utah, 72 children under the age of 15 died in 1986.

We have taken some action. During the 99th Congress, this Committee passed legislation giving the Centers for Disease Control authority to make grants to public and nonprofit entities to conduct research into causes, mechanisms, prevention, diagnosis, treatment, and rehabilitation from injuries.

That legislation also instructed the Centers for Disease Control to assist states and other entities in their efforts to control injuries. And, finally, that legislation required CDC to prepare a report for

page 2

Congress on injury control. Hopefully, Dr. Koop can give us some idea when this report will be available. This report will provide valuable information necessary to developing any future initiatives.

Our country is fortunate to have someone like Dr. Koop involved with this issue. We are lucky because he cares. He cares about protecting our children from injuries. He cares about preventing our children from becoming addicted to drugs or alcohol. And, he cares about stopping our children from becoming infected with AIDS. There is no way we will ever be able to estimate accurately the number of lives his efforts have touched, but it is clear that we all owe him our thanks.

In addition to the efforts of the federal government, we should not forget that private organizations have also played a vital role in educating the public about how to prevent injuries. I want to commend the American Academy of Pediatrics, the American Academy of Family Medicine, the Children's Defense Fund, Safe Kids, and others for their tireless work in this area.

I look forward to reviewing the testimony today and to working with my colleagues on this committee

page 3

to promote continued awareness of these dangers to children.

Senator DODD. This morning's program will begin with a brief, eight-minute video on childhood accidents and injuries, and then we will hear from the Surgeon General of the United States and Congressman James Florio, who I believe will be here if he is not here already.

[Videotape shown.]

Senator DODD. Surgeon General, welcome. Thank you for being with us this morning. We are delighted to have you with us, and I know you are accompanied by Dr. Houk from the Centers for Disease Control in Atlanta, and we are honored that you are with us as well this morning, Dr. Houk.

Again, Surgeon General, I am personally very grateful to you. I know you are a very busy man with a heavy schedule and I am honored that you would appear before the subcommittee and share your thoughts. Obviously, you have been involved in this issue for some time, so it is not a new matter for you.

We would be glad to receive your testimony in any manner in which you would care to present it to us this morning.

STATEMENT OF C. EVERETT KOOP, M.D., SURGEON GENERAL, U.S. PUBLIC HEALTH SERVICE, DEPARTMENT OF HEALTH AND HUMAN SERVICES; ACCOMPANIED BY VERNON N. HOUK, DIRECTOR, CENTER FOR ENVIRONMENTAL HEALTH AND INJURY CONTROL

Dr. KOOP. Well, thank you, Mr. Chairman. I appreciate this opportunity to speak for the record on a matter of grave importance to the future health and well-being of this Nation, and I refer, of course, to the unacceptably high rate of intentional and unintentional injuries suffered by millions of American children every year.

I am joined this morning, as you have already noted, by my colleague and good friend, Dr. Vernon N. Houk, who is Director of the Center for Environmental Health and Injury Control, one of the Centers for Disease Control in Atlanta.

I used the term "millions" a moment ago to describe the scope of the problem we are discussing this morning, but allow me to be a little bit more precise. The United States Public Health Service currently estimates that some 19 million children under the age of 15 are injured seriously enough every year to require medical attention. Nineteen million is about one child in every four.

Mr. Chairman, if some infectious disease came along that affected one out of every four children in the United States, there would be a huge public outcry and we would be told to spare no expense to find a cure and to be quick about it. But somehow the American people are slow to become that concerned about the epidemic of intentional and unintentional injuries that strike down so many children each year.

Now, it may be that the public is used to the word "accident" and all that it implies. People look at an accident as being a random, but nevertheless inevitable event, an event ordained by fate or some other metaphysical or theological force, an event which none of us poor mortals can control in any way.

Now, unfortunately, the word is used as a general term to cover a wide range of events, and that is a serious problem of public understanding since most injuries to people and nearly all injuries to children can be predicted and can be prevented.

It is not fate that randomly throws an infant through the windshield of the family car. Rather, it is the fact that the parent did not strap the child in an infant seat in the rear of the car and did not drive defensively on the highway. When a parent doesn't do these things then injuries are bound to occur, but such injuries are preventable and they are no accident.

Frankly, that is why I agreed to be the Honorary Chairman of the National Safe Kids Campaign. First, I believe that everyone, myself included, has to do his or her part in alerting America to this terrible threat to the lives of our children. We simply must raise the level of awareness and concern in regard to childhood injuries.

Second, we have got to convince the American people that their fatalism about accidents is unacceptable nonsense. That it is a cop-out, a transparent evasion of adult responsibility. People can do something to reduce the level of injury and death among children, and they have to do it now.

Nineteen million injuries to children every year, I said, Mr. Chairman, but what kind of injuries are they? Our young children are injured on the roads and highways; injuries involving automobiles and bicycles head the list. But children are also drowned in swimming pools and bathtubs; they are burned in house fires; and they fall down stairs, or perhaps let us say they allegedly fall down stairs.

They choke on badly designed toys or are choked by a friend or a relative, and they are poisoned by household chemicals, bad food, and by dangerous drugs.

In virtually every one of these cases, Mr. Chairman, the injury can be prevented. The tragedy need not occur and it should not occur. Maybe it can be prevented by the child himself or herself, with the help of a strong education program. But more often than not, these 19 million injuries occur because the community, the school, friends, or the families themselves do not do what they should to protect their children.

Or what is worse, some people may deliberately do things to put a child's life at risk. As this committee knows, every year there are well over a million such cases of child abuse and neglect in our society.

As I mentioned earlier, some 19 million children each year are injured seriously enough to require medical treatment, and of that number about ten percent, or nearly two million children, are incapacitated for at least two weeks, most of them for a lot longer.

And among these millions of children, there are at least 100,000 boys and girls under the age of 15 who at one time were able-bodied and healthy, but who now become permanently disabled in some way; at least 100,000 every year.

Life is different for them. During their remaining 40, 50, or maybe 60 years of life, they must negotiate relationships and environments and make choices that the rest of us who aren't disabled don't have to make.

In order to live a full and satisfying life, these children require of themselves, of their families, of their friends, of society, an additional quota of energy and interest and assistance and, of course, money, and they require these things every day.

Mr. Chairman, I spent most of my professional life as a surgeon in pediatrics. I saw children when they were the most vulnerable, and I saw them when life and death hung in the balance, and I am sure you and your colleagues have as well.

You can easily picture them in your mind's eye and you are moved by what you picture, but do not stop there. Try to imagine them as living, growing, developing human beings. Try to imagine them in high school or going on into higher education. Try to imagine them with a lingering disability, but nevertheless going to classes, to the dining halls, to the stadium, and trying in every possible way to take part in the intellectual and social life of their school, and doing so with every ounce of talent, bravery, and good grace that they can muster.

Imagine, if you will, that same young adult going out into the world of work, competing for a job, for a good salary, for responsibility, and for recognition just like any other conscientious young employee. And despite the injured or missing limbs or the injured spinal cord or the loss of vision, that young person is succeeding because of the extra will power and energy and equipment that are available and being exploited to the maximum.

Imagine a happy, productive, and fulfilling marriage and home life. That is also possible, but, again, it is a home life that is circumscribed in a particular way, a home life that demands choices that most other people haven't had to make.

Just one event, one injury suffered as a child, one permanent change, and it leads to a lifetime permanently spent taking those extra steps, exercising that extra measure of caution and control, a lifetime spent taking that extra moment to assess the risk of the next move, a lifetime of extraordinary cost in both material and human terms.

Mr. Chairman, I suggest that childhood injuries are not only devastating to children, but they are also one of the leading causes of physical and mental disability, of arrested development, and of restricted life experiences for millions of adults—the children who had been injured, but who survived and who grew up and grew old carrying the scars of those injuries with them.

Thus the tragedy of childhood injuries is compounded year after year. For most of the 19 million children who will be injured in the United States this year, life will go on, but for many of them it will be different. Life will be a little harder, a little more special, and it will always be that way.

There are very few one-time costs associated with childhood injuries, Mr. Chairman. There are only lifetime costs. To me, therefore, the challenge is simply this: If we want the United States to maintain its role of world leadership, then the people of the United States must be able to live independently, be healthy, and have the opportunity to live full and productive lives.

For the American people to maintain such a high level of work performance and life performance, they must have safer highways and motor vehicles, safer homes and schools, safer playgrounds and

other recreational areas, safer toys, and virtually everything else in our thriving marketplace; all must be made safer.

This, then, is a job for all of us, for Government and the private sector, for our schools and all other community institutions, for our families, our professional people in medicine, nursing, and education. In other words, there is enough work here for everyone.

The American people can't be a happy and productive people if they live in a life-threatening environment surrounded by danger. Our Nation must be made safe for everyone, but most of all it must be a nation that is safe for the children who are America's future.

Mr. Chairman, that ends my formal statement. If I may, I would like to provide for the record some additional information related to childhood injuries drawn from the programs of the Centers for Disease Control and the National Institute of Child Health and Human Development at the National Institutes of Health.

Now, sir, I would be happy to answer any questions, if I may.

Senator DODD. Thank you, Doctor, and certainly we would welcome that additional information as well and will make it part of this hearing record.

[Information supplied by Dr. Koop follows:]

National Institute of Child Health and Human Development
Research Toward Prevention of Childhood Injuries

In the past 25 years unintentional injuries have emerged as the major cause of death and damage to children and young adults. While children in the United States have witnessed dramatic reductions in the risk of death and disability from many other conditions, the incidence of injuries remains stubbornly high, and the consequences often include permanent disability. In spite of this frustration, ample evidence exists that substantial numbers of various types of injuries are preventable with existing knowledge, and others could be prevented with the development and application of new knowledge.

Injuries cause more deaths in children and young adult age groups than the six next most frequent causes combined (cancer, congenital anomalies, pneumonia, heart disease, homicide and stroke). About half of all deaths in young children result from injuries, and this rate increases to almost 80 percent in the 15 to 24 year age group. Only in children less than a year of age do other conditions exceed injury as a cause of death. In all age groups, except infants, motor vehicle related injuries are the leading external cause of death, followed by drowning and fire or burns.

Published statistics on morbidity due to injuries are overwhelming (although usually underreported). Each year, approximately 19 million children less than 15 years of age obtain medical care for an injury. Injuries incapacitate about two million children for two weeks or longer, and at least 100,000 children suffer permanent disabilities. The emotional cost to injured children and their families is incalculable. The annual cost incurred from motor vehicle injuries alone has been estimated at more than 25 billion dollars, a sum second only to the cost associated with cancer. Clearly, injury is one of the most important challenges facing the health and scientific community in reducing mortality and suffering in childhood.

The National Institute of Child Health and Human Development (NICHD) recognized this most common cause of death and damage to children a number of years ago with an Institute Conference on "Research Directions Toward the Reduction of Injury in the Young and the Old" in 1971. The current research program emerged in 1986 when the Institute conducted a workshop to formulate key research questions and to identify methodologies for research in this area. The proceedings of this workshop were published in the American Journal of Diseases of Children. This has formed the basis of planning for a five-year initiative of the Institute which includes successive Requests for Applications for grants to investigate etiologies and interventions; contracts for development of methodologies; solicitation for Small Business

Innovation Research contracts; a network for clinical trials and collaborative studies; and a series of conferences.

As a consequence of the initiative for research toward prevention of childhood injury, eight studies have been supported by the Institute to investigate mechanisms and antecedents of injury. The first study is an effort to determine the accuracy of parental information regarding home hazards in relation to perceived purposes of the observation, to assess the relationship between home hazards and children's injuries, and to analyze the interaction of parents and children in the presence of contrived hazards. Preliminary results revealed that when their mothers were distracted, children with a history of injury had a higher level of hazard contact, disruptive behavior, and activity change than children without prior injury. The parents of injured children had significantly lower rates of play activities with their children. Furthermore, elevated scores on a standardized Child Behavior Checklist identified children whose behavior placed them at risk of injury. Thus, this project has identified both behaviors to target for reducing the risk of injury and a convenient checklist to screen for children at risk.

Another project, a longitudinal study of twins, was recently initiated to investigate the relationship of childhood injuries to behavioral-developmental features of the child's temperament and attention, parental characteristics, and the family

environment. This study also furnishes a unique opportunity to examine subtle conditions associated with one twin being injured more than the other. Preliminary findings from the study, which compared medical records with parental interviews concerning medically attended injuries one to four years earlier, revealed that parents were largely accurate in providing information on the nature of the injury and treatment involved. The study should ultimately specify the developmental aspects of the child and the child's behavioral and material environments that can be targeted for injury control.

Another study describes, through longitudinal home visits with comprehensive video and audio recordings, the entire set of factors existing within a family which help maintain a child's safety within the home such as the specific rules used by parents to limit their children's exposure to hazards. Preliminary results reveal how children's access to the home and their interaction with parents change with development. The study also suggests that there is a wide range of safety management systems as a result of different emphasis on physical, supervisory and training constraints and relates these differences to the parent's stated beliefs about development and child rearing.

Of the eight projects, five were initiated within the past two years, and preliminary results are not yet available. One project questions whether parents' perceptions of risk to their

young children are a major determinant of how the parents organize their physical environment and pattern their behaviors to reduce the risk of injury to their children. Another project will identify the combinations of variables that contribute to the risk of childhood poisoning. Three of the projects are supported under the Small Business Innovative Research Program (SBIR). One of these SBIR projects aims to reduce swimming pool drownings by developing an integrated system of safety measures through providing redundant layers of protection. A second project is determining an effective and safe aversive sound stimulus which repels children and alerts parents in order to minimize child injury from electrical and other household environmental hazards. A third project is developing a new child-proof safety container which is easy for use by elderly adults.

Six new projects, which have just been approved for funding, will begin work this year. One will examine individual differences in stress susceptibility as a moderating factor in the relationship between environmental stressor and childhood injury. A second will examine the effects of television viewing on children's knowledge, beliefs, and processing of injury event situations. A third will seek to identify environmental, behavioral, and family characteristics that place children at risk for pedestrian injury. Another project will examine the relationship between parental alcohol use and children's injuries

in two large cross sectional representative samples of U.S. children. A fifth project will seek to validate two effective methodologies of process analysis for examining individual and environmental factors in the occurrence of childhood injuries. A final project will identify parent attitudes, beliefs, and behaviors which may increase the risk of pedestrian injuries in school aged children by testing the hypothesis that parents' abilities to assess their children's pedestrian skills vary with the child's age and difficulty of the pedestrian task. This research should provide important groundwork from which specific hypotheses regarding the mechanism of injury and safety can be tested and from which interventions can be developed for evaluation. The NICHD's support for these 14 childhood injury projects in FY 1989 is expected to total approximately two million dollars.

Additional activities of the Institute for prevention of childhood injury include a conference in March 1989 aimed at developing standard definitions and subcategories for data important to the field of childhood injury research. The Institute also has supported the collection of childhood injury data in the 1988 National Center for Health Statistics Child Health Supplement of the Household Interview Survey and will contribute to the analysis of these data.

In summary NICHD has joined other Federal agencies with a substantial effort and progressive commitment to support and facilitate research aimed at reducing death and disability from childhood injuries.

Statement For the Record

Prepared By The

CENTERS FOR DISEASE CONTROL

PUBLIC HEALTH SERVICE

DEPARTMENT OF HEALTH AND HUMAN SERVICES

"CHILDHOOD INJURY--THE PROBLEM AND PROGRESS"

FOR THE

HUMAN RESOURCES AND INTERGOVERNMENTAL RELATIONS SUBCOMMITTEE

OF THE

COMMITTEE ON GOVERNMENT OPERATIONS

U.S. HOUSE OF REPRESENTATIVES

February 9, 1989

The Centers for Disease Control (CDC) is leading national efforts to accelerate progress in injury prevention and control.

Injury is the number one killer of children in the U.S. Injury fatality rates for adolescents and teenagers are higher than for any other age group except the elderly. In 1986, 22,411 children under the age of 20 died from intentional and unintentional injuries; 9,516 of these deaths were children under 15 years of age. About 40 percent of all deaths in 1-4 year olds and 45 percent of deaths in 5-14 year olds are caused by injuries. Among children under 15, motor vehicle crashes, fires, drownings, homicides, and suffocation are leading causes of injury deaths. About 40 percent of all pedestrian deaths are among young children. The leading causes of injury deaths among young persons 15-19 years of age are motor vehicle crashes, suicides, homicides, and drowning.

Available data on nonfatal injuries further underscore the magnitude of the injury problem and encompass many degrees of injury severity. One study of unintentional injuries of Massachusetts children found that for each death from injury there were 45 hospitalizations and 1,300 emergency room visits.

An example of the devastating aftermath of injury is reflected by head injury. Each year, about 1.8 million people in the United States suffer such injuries. Many of these injuries affect young people. Over 50,000 of those who survive injuries experience long-term physical and mental difficulties as a result of their injuries and often face decades of costly care and rehabilitation. Many never return to the productive and promising lives that they were leading before their injuries. As a result of head injuries, families of those victims and our society will, this year, face an estimated \$36 billion in medical and long-term care expenses (Source: National Head Injury Foundation). On average, life-time care for a severe head injury victim costs a staggering \$4 million.

Intentional injuries (for example, homicides, suicides, assault, and child abuse) among youth are of particular concern. Among young people in this country, suicide and homicide are the second and third leading causes of death. The importance of intentional injuries for young people is increasing. In the past 30 years, the suicide rate for young persons 15-19 years of age has more than tripled. Underlying these fatalities are an estimated 20,000 to 30,000 youth suicide attempts in this age group each year in the United States. In addition, homicide is the leading cause of death for black males 15-19 years of age and will be the premature cause of death for 1 black male in 28.

Family violence is just as devastating. Intrafamilial homicide accounts for approximately one out of six of the 20,000 homicides which occur each year in the United States. Furthermore, exposure to family violence at an early stage in life appears to be a strong risk factor for later suicidal and violent behavior among adolescents and young adults.

Despite these alarming data, some progress is being made. Total injury deaths occurring among persons under 15 years of age have declined from 16,154 in 1970 to 9,516 in 1986 -- a 42 percent reduction. The mortality rates have

also declined significantly in this age group, e.g., motor vehicle mortality rates have dropped from 10.2 per 100,000 to 5.8 per 100,000 and mortality rates for home injuries have dropped from 7 per 100,000 to 6 per 100,000.

Motor-vehicle related deaths among young children have declined in large part as a result of State laws requiring the use of restraint seats and safety belts for children. The reduction of childhood suffocations is attributed to industry and government derived standards governing the design of consumer products such as those that have reduced choking hazards associated with cribs and toys. Industry, private physician, and government collaboration led to the promulgation of the Poison Prevention Packaging Act of 1970--an Act that has resulted in a dramatic decrease in childhood poisoning fatalities. For reasons not yet fully understood, drowning deaths at home have also declined. We do know that home drowning deaths are substantially lower in communities that require protective swimming pool fencing than in communities that do not have such requirements.

In its national leadership role, CDC has established a substantial national science and program base for injury prevention and control; outstanding national scientists, private and public health practitioners, government leaders, and others have been mobilized to focus on injury prevention and control; and new and productive links have been forged among diverse disciplines. Injury problems are now being addressed more effectively and more efficiently.

Work completed or underway at CDC that focuses on or encompasses childhood injury includes:

- Establishment of a collaborative model program in Rhode Island with the National Institute on Alcohol Abuse and Alcoholism that has mobilized an entire community to reduce alcohol-related assaultive and motor-vehicle injuries.
- Development and dissemination of community guidelines to prevent and contain clusters of suicides among young people. CDC investigations into the youth suicide problem identified new information and risk-factors which enable communities to organize and focus their prevention efforts more efficiently.
- Identification, for the first time, of information on the dynamics of assaults and murders among family members and other intimates thereby calling attention to new, more productive avenues to address this major source of intentional injury morbidity and mortality.
- A groundbreaking effort in North Carolina that is determining the causes and ways to prevent housefires among rural populations -- a major cause of fatal and nonfatal childhood injuries.
- Investigation of a suspected outbreak of fatal injuries among farm children did not identify an excess. However, this study in Wisconsin did identify preventable causes of injuries that were occurring.

- A program to identify causes and ways to prevent serious injuries among children while at day care centers. Further work is underway with the Utah Department of Health to develop and evaluate prevention programs for playground injuries.
- A study to determine the extent of work-related deaths among children under 16 years of age. The study will seek to determine the extent of the problem in selected States and to describe the circumstances of the deaths in order to identify potential intervention strategies.

CDC also played an important role in the decision to stop the sale of three-wheeled all terrain vehicles (ATVs). ATVs have been associated with about 240 deaths and 84,000 hospitalized injuries each year, many of which are among children and young adults. In 1986, a CDC epidemiologist, in collaboration with Alaska's Department of Public Health, developed the Nation's first published, peer-reviewed study of the ATV problem. This study provided the U.S. Consumer Product Safety Commission, (CPSC) with evidence essential to their recent decision to stop the sale of three-wheeled ATV's. Information from CPSC indicates that ATV injuries can be expected to decrease from 77,000 in 1987, the year of the sales ban, to 55,000 in 1992. Accelerated reductions will occur after 1992 as older ATVs are scrapped.

CDC support five injury prevention research centers (IPRC) all of which encompass childhood injuries. For example, the University of Washington IPRC is addressing the prevention of pedestrian and bicycle-related injuries among young children.

CDC is also supporting 31 other research projects which are addressing such priority issues as severe injuries to children in low income urban areas, ways to increase the use of safety belts among children, and ways to improve the outcome of brain injuries to children. Researchers are also studying the relative effectiveness of various school-based youth suicide prevention programs so that resources may be used to support those interventions with greatest impact on this serious contemporary health problem.

The toll of injury among our Nation's youth is unnecessary and unacceptable. The National Research Council, in its 1988 report, Injury Control - A review of the Status and Progress of the Injury Control Program at the Centers for Disease Control, underscores that the Nation is at a turning point for injury control when opportunities are available to improve the prevention, control, and treatment of injury and disability and to reduce staggering health care costs. Researchers and public and private health professionals, voluntary organizations, industry, academia, and government, can and must continue to expand their efforts to seek new, additional ways to meet the challenges posed by this national epidemic.

Senator DODD. I want to apologize in advance; I have this cold. You don't have any medicine you could offer, I hope.

Dr. KOOP. I have got a cough drop.

Senator DODD. I apologize for blowing my nose up here in the middle of all of this.

Let me, if I can, just ask you a couple of questions. Again, I personally want to thank you for everything you have done, being the honorary chairman of this effort and your testimony today and on numerous other occasions in highlighting this.

Just having a hearing like this, in a sense, may help to some degree, at least as part of the educational effort. I am not always convinced legislation is necessary in every instance, but if we can just make people more aware, we can accomplish a great deal.

But you did mention in the last part of your testimony the lifetime costs, and I think too often that is forgotten that we are paying already a pretty dear price for this just in economic terms.

You talked about the potential for a productive citizen becoming a net cost to society over the long term. We know, for example, that 2.4 million work years are lost each year due to childhood accidents and injuries. We have been able to calculate that, at least, based on actuarial tables, and so forth.

Are there any statistics that you know of which measure the long-term economic costs to the Nation associated with childhood injuries beyond that? And if not, I wonder how we might acquire such data.

Dr. KOOP. Well, it depends how you calculate those costs, Senator. If you talk about just the cost of the health care at the time of the injury, you get one figure. It is very difficult in children to talk about potential work loss because when we talk about childhood accidents most people shut them off at age 15 or 20. This doesn't take into account what I said this morning that the real tragedy of childhood injury is the lifetime expense not only to the individual himself, but to us in society.

Do you have something, Vernon?

Dr. HOUK. I would like to give two examples, Mr. Dodd, if I can. Of the head injuries that occur each year, approximately 50,000 result in permanent, severe damage to the individual. The long-term cost to this society for head injuries is \$36 billion.

An individual who has a severe head injury the remainder of his life costs about \$4 million to support.

Senator DODD. What do you mean by that? Do you want to put some parameters on that? Severe—what do you mean by severe?

Dr. HOUK. Severe is totally incapacitated, in and out of coma, that has to have constant nursing care, et cetera.

Senator DODD. And run those numbers by us again.

Dr. HOUK. Yes. There are 50,000 per year. The total cost, the medical care cost, and the long-term care cost is \$36 billion.

Senator DODD. That is with a "b?"

Dr. HOUK. With a "b." An individual during his lifetime with a severe head injury averages \$4 million. Likewise, on severe spinal cord injury that results in paraplegia or quadriplegia, the long-term care costs for those individuals, which are, again, about 50,000, are about \$18 billion, with a "b."

Senator DODD. And those are injuries that occurred during childhood years you are talking about?

Dr. HOUK. Almost all of those occur during the childhood years. Most of the injuries occur before—the severe, debilitating like that—before the age of about 24, not all, but most.

Senator DODD. And, again, do they fall into the category that Dr. Koop talked about, the preventable injury?

Dr. HOUK. Yes, yes. The principal causes of head injury in this country are automobiles, guns, violence. The principal causes of spinal cord injury are, again, automobiles, sports, and, again, the violence.

Senator DODD. Staggering numbers.

How about collecting data in this area, Doctor? I want to come back to you in a second, Dr. Houk, because I know you are an expert in lead and I want to hear what you have got to say about that as well.

What about in the area in some sense of collecting national data, the information we just heard from Dr. Houk, for instance?

Dr. KOOP. I think again, Senator, that Dr. Houk can best answer that because, as you know, the childhood injury program is high on the list of priorities of the Centers for Disease Control; they are doing surveillance on this and collecting the data.

Dr. HOUK. Yes. We have, particularly in two areas to begin with, working with the States, the Head Injury Foundation, the spinal cord injury people, and a coalition has been set up through the injury control effort making spinal cord injury and head injury a reportable disease to the States and collecting data as best that we can on these sorts of injuries.

We have burns from hot water, as you mentioned in your opening statement. We could prevent 4,000 burn deaths per year in toddlers by turning our water heaters down to 110 degrees, and we don't need water hotter than that in our homes. In addition to that, you would save some energy.

Data that just came out from the National Center for Health Statistics a couple of days ago indicate that the death rate from natural causes in the United States in children up to the age of 15 is lower than the Western European countries, Sweden, Canada, Japan, and Australia.

And yet our overall death rate is higher than in those countries, and the reason for that overall death rate being higher is it is totally contributed by the intentional and the unintentional injuries. And I will make that available for the record if you would like after this. We just got the data yesterday and didn't have time to weave it into Dr. Koop's testimony.

Senator DODD. I would very much like to see that.

[Information supplied by Dr. Houk follows:]

Preventable Excess Childhood Injury Mortality
United States, 1985

"... childhood death rates in the United States are considerably higher than in other industrialized countries. Virtually all of the excess mortality among children in the United States is attributed to (unintentional) injury and violence."

Trends and Current Status in Childhood
Mortality, United States, 1900-85.
(National Center for Health Statistics,
Centers for Disease Control, 1989)

Death rates in the United States from all natural causes (for example, cancer and birth defects) among children 1-19 years of age are generally somewhat lower than rates in France, The Netherlands, England and Wales, Sweden, Canada, Japan, and Australia (Figure 1). However, childhood death rates from all causes, which include intentional (violence-related) and unintentional injuries, are significantly higher in the United States in all but the 5-9 year old age category (Figure 2).

Figure 3 dramatically illustrates the contribution of intentional and unintentional injuries to excess childhood mortality in the U.S. compared to other noted countries. Death rates for suicide (Figure 4) as well as for unintentional injuries are generally higher in the U.S. than in other industrialized countries.

Excess homicide mortality among 15-19 year olds, particularly Black males, is particularly striking (Figures 5 and 6). The role of firearms in these premature deaths is also notable. In 1985, there were 1,579 homicides among males and females ages 15-19 in the U.S. There were only 159 total homicides among 15-19 year old males and females in the Federal Republic of Germany, France, England and Wales, Sweden, Canada, and Japan — this despite the fact that the combined population of these countries is 1.4 times that of the U.S. Firearm-related homicides accounted for 67 percent of the U.S. total, but only 26 percent of the total for all other noted countries.

While cross-country comparisons of suicides by method used to commit the suicides are not available, among U.S. 15-19 year olds, there has been a steady increase in suicides and in the proportion of suicides committed with firearms since 1968.

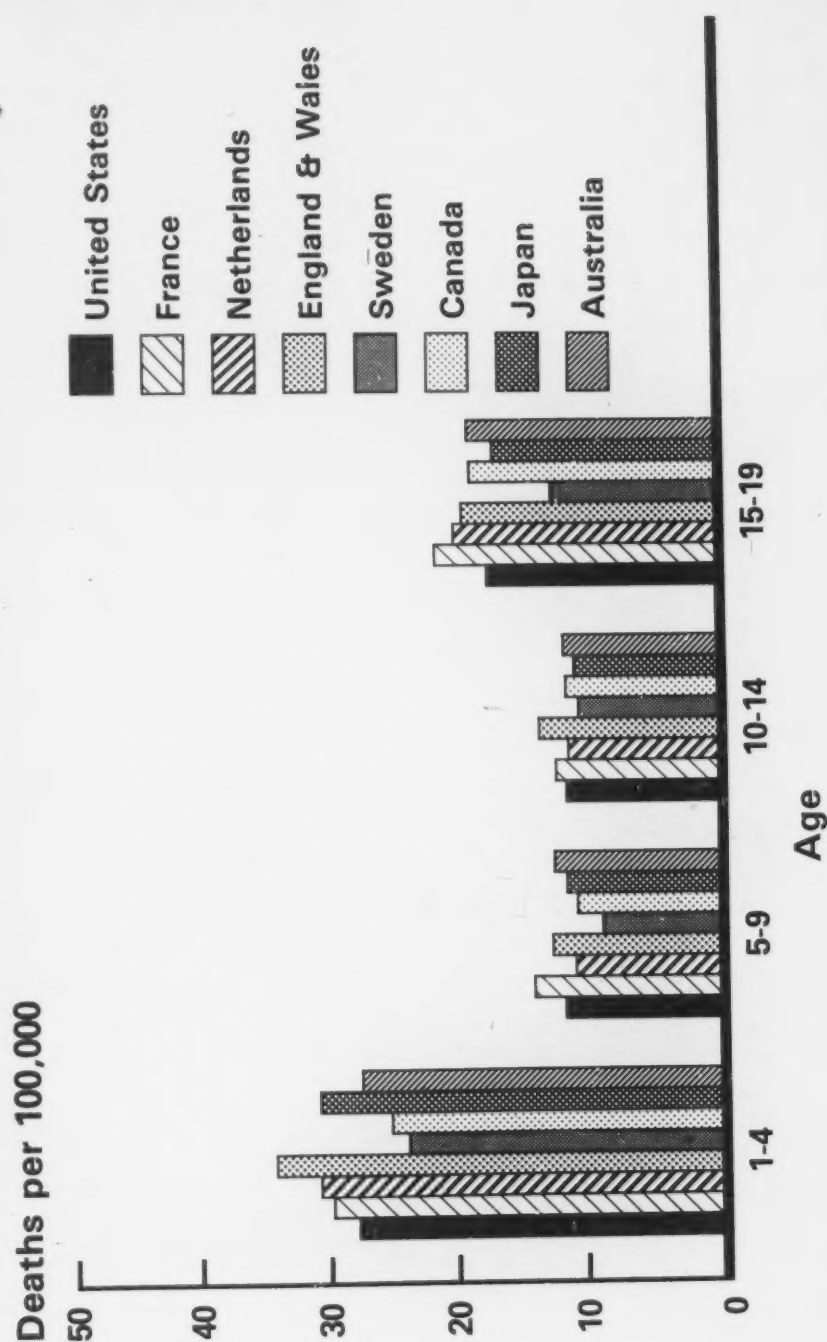
There are many factors that can contribute to variations in injury rates among industrialized nations. These include socioeconomic and cultural differences as well as differences in exposures to agents of unintentional injury and violence (for example, motor-vehicle use patterns, level of seat belt use, prevalence of swimming hazards, and firearms access). However, these very differences point the way to progress.

The Centers for Disease Control (CDC) is leading and coordinating a new national effort to prevent and control injuries. That this is a realistic, important investment for the U.S. to make is dramatically underscored by the generally much lower injury death rates that are enjoyed by other industrialized nations.

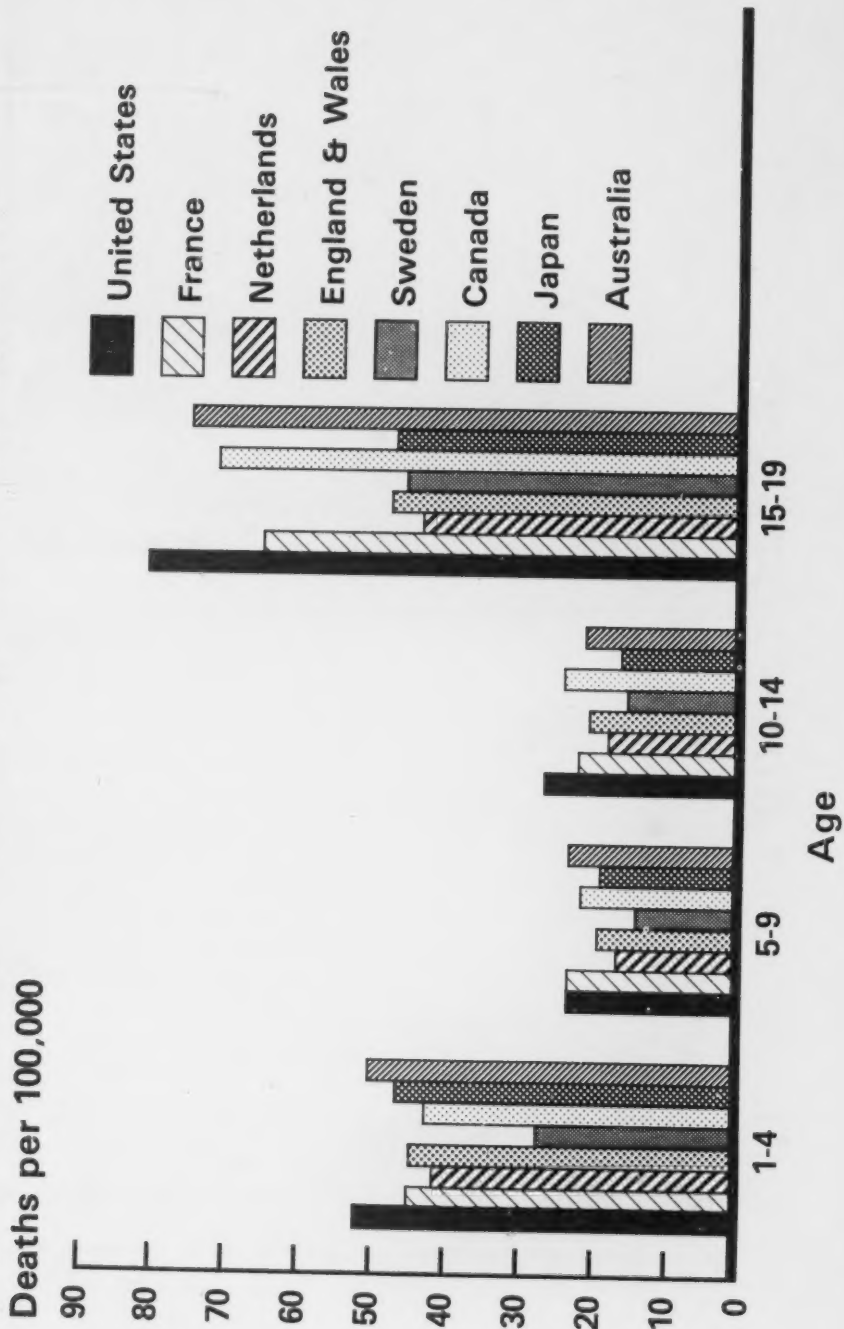
Source of data and other information used in this report: National Center for Health Statistics, CDC.

This report prepared by: Center for Environmental Health and Injury Control, CDC.

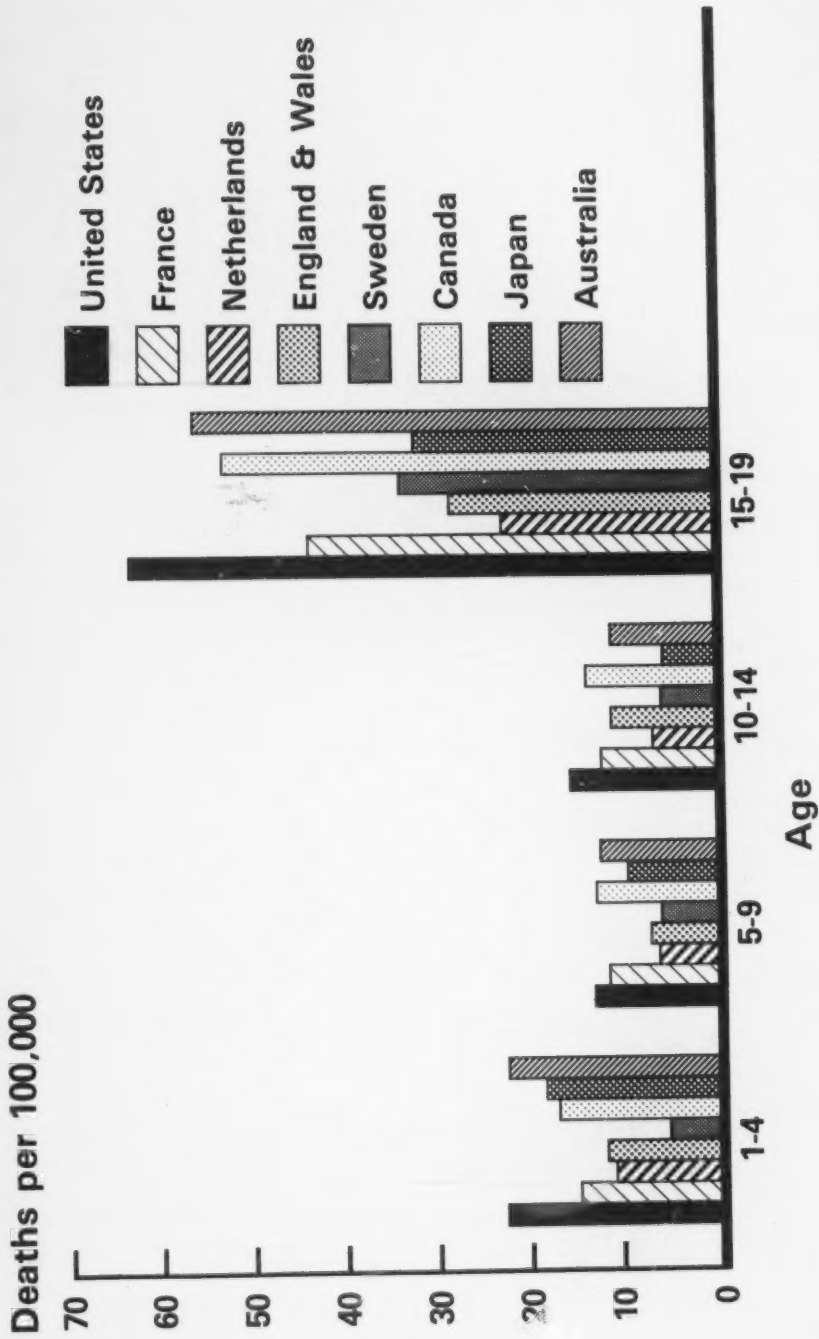
Death rates from natural causes, 1985



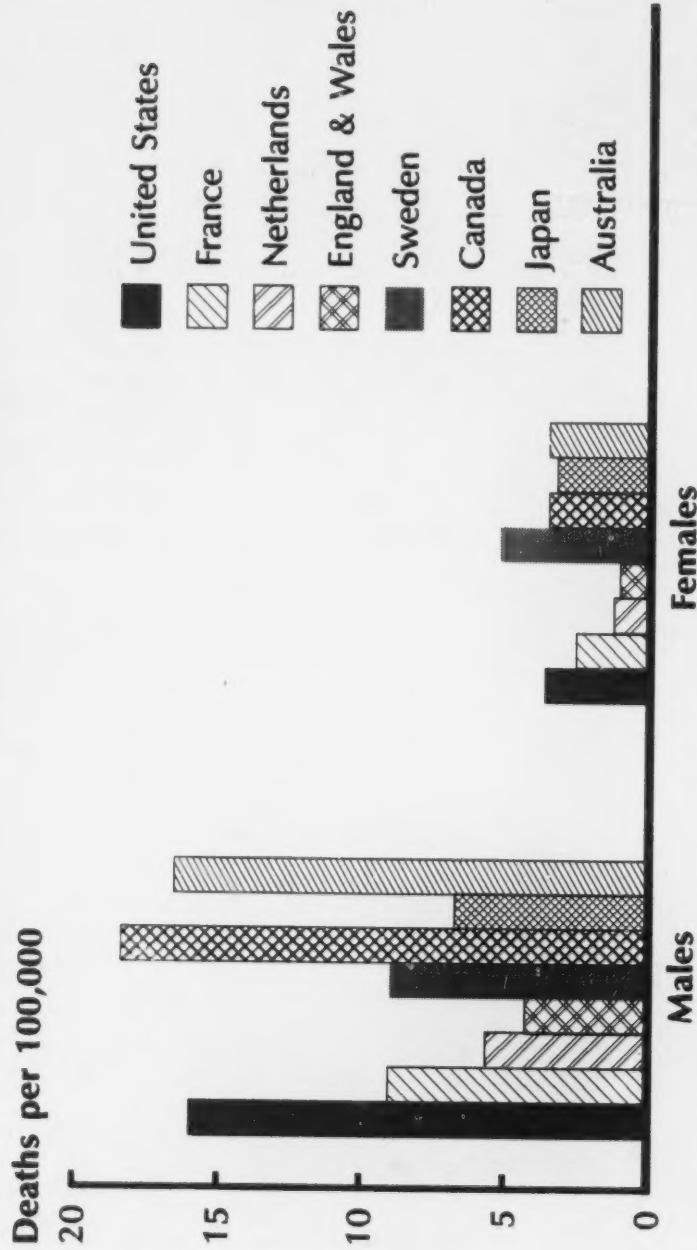
Death rates from all causes, 1985



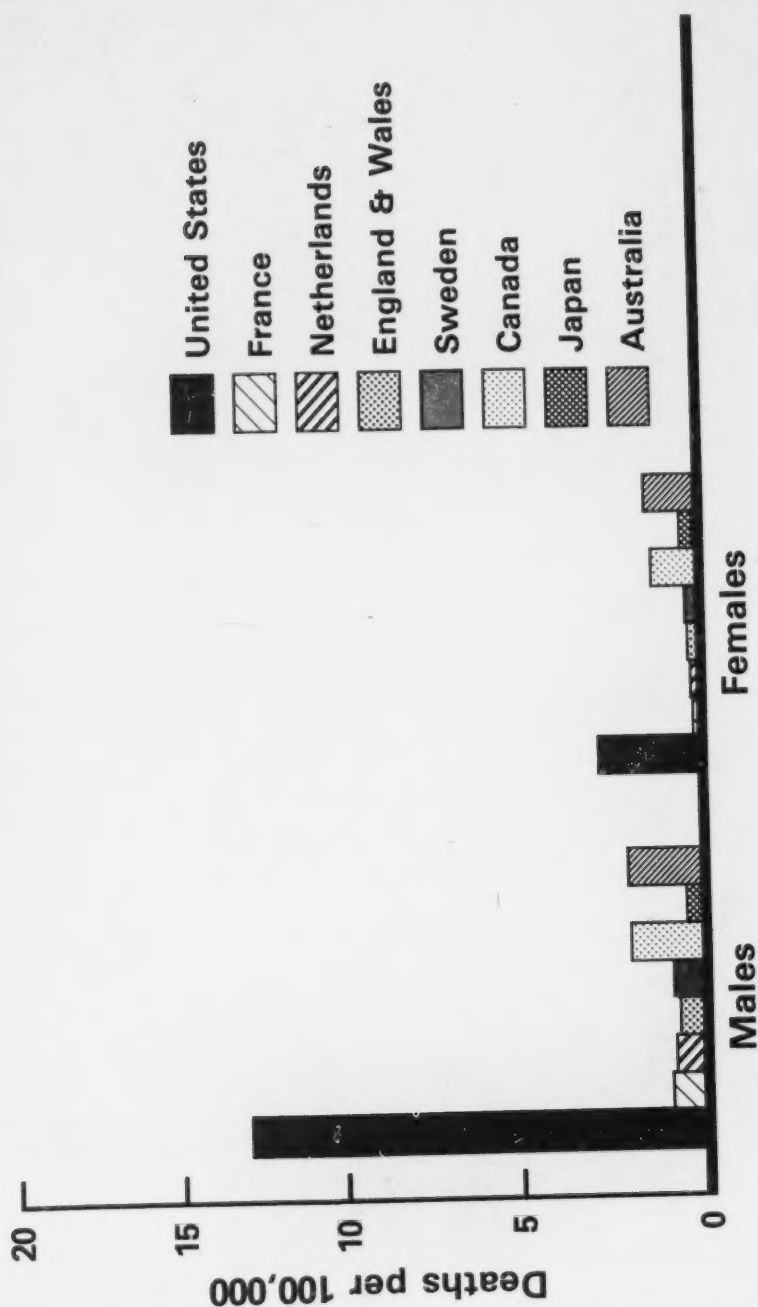
Death rates from injuries and violence, 1985



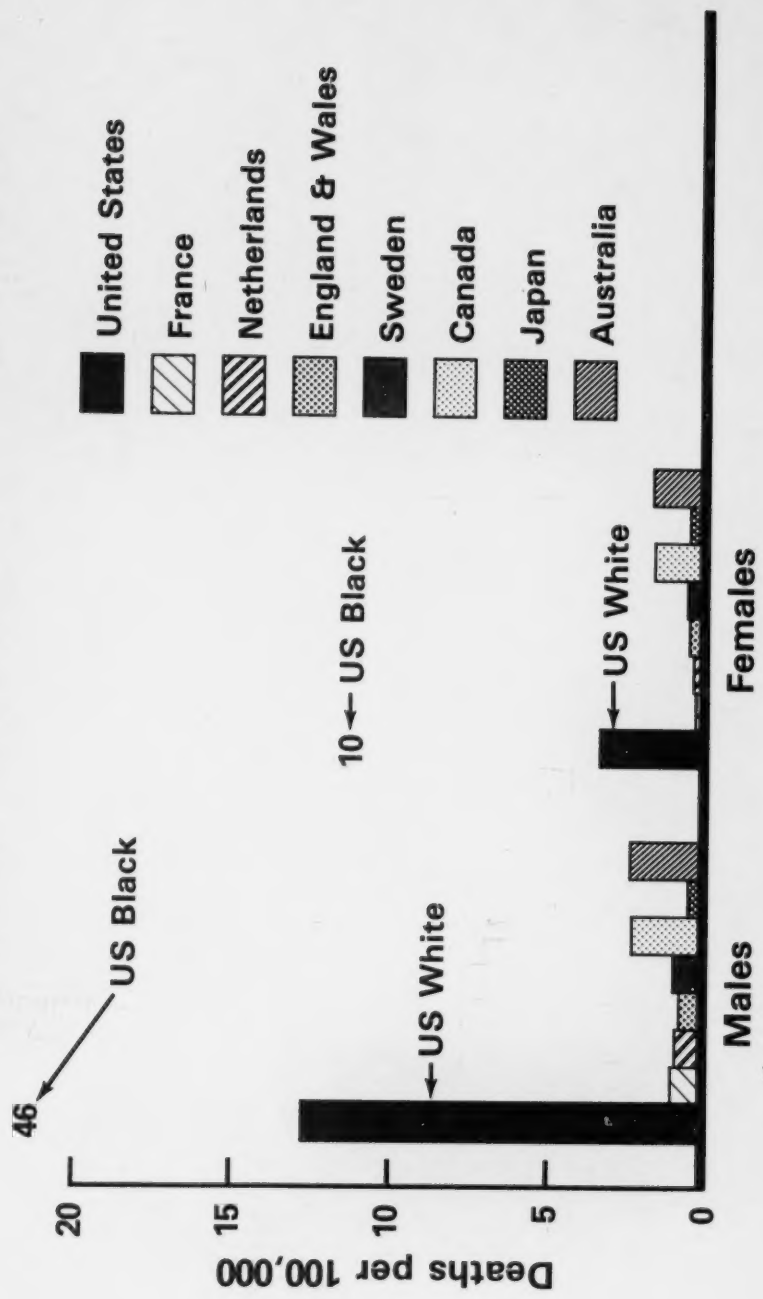
Death rates from suicide for teenagers 15-19 years of age, 1985



Death rates from homicide for teenagers 15-19 years of age, 1985



Death rates from homicide for teenagers 15-19 years of age, 1985



Senator DODD. So, in other words, when they talk about mortality, let me just ask you this, either one of you. All of us have talked about infant mortality rates in this country over the last number of months, and the horror of it all and the embarrassment that this society would rank as high as we do.

Are you suggesting that this data would indicate that in infant mortality that the reason we are as high as we are is because of avoidable or preventable injuries?

Dr. KOOP. Not infant mortality only. This is from birth to 15 years.

Senator DODD. I understand that, yes.

Dr. KOOP. In terms of natural causes we are way ahead of the other industrialized nations. But when you add accidents to it, then our death rate is higher than those countries.

Senator DODD. I see.

Dr. KOOP. But your other question is well answered by the proverbial tip of the iceberg. If you focus on mortality, you miss what is going on.

Senator DODD. Yes, that is my point.

Dr. KOOP. For every child that dies, there are 45 that are hospitalized. For every child that dies, there are 1,300 that go to an emergency room. And for every child that dies, there are 2,600 who are injured at home, maybe treated at home or treated by an emergency squad, but do not make their way to a hospital.

Senator DODD. So focusing your point, we have a tendency to exaggerate the mortality and not pay enough attention to the—

Dr. KOOP. Yes, it is the morbidity and the life-long trauma result that I was talking about in my testimony. That is what causes our Nation difficulty in terms of productivity and cost.

Senator DODD. Absolutely.

What are some of the ways—Doctor, you have been involved in these issues for so long and you have seen a lot of efforts succeed and fail in terms of public awareness. Taking into account your last seven or eight years now of sitting where you are, where do you think we should put an effort in terms of public awareness?

Dr. KOOP. Well, I think what you are doing today and what you have already implied is very important. When the United States Senate recognizes that this problem is worth a hearing, then I think the Nation pays some attention.

But as you also said, legislation alone is not going to do it, but legislation draws attention to the fact that we have to obey the implications of that legislation. Smoke detectors are a beautiful example of that.

There is lots of legislation about smoke detectors, but I suspect if the people in this room tested their own smoke detectors, a significant number of them would already be inoperable. So we have to make people constantly aware that government and regulations and statutes can go only so far.

As I spent my life in pediatric surgery and dealt with a lot of injuries, parents always asked, you know, "what if" or "if only," the two questions that parents always ask after the fact. I used to talk to them this way because they understand it—no matter how experienced an airplane pilot is, whether he is an amateur or a professional, he never starts his plane or takes off without going

through the same checklist, no matter how familiar he thinks he is with the plane.

I then asked parents to develop checklists by going through their homes and looking at the things that they saw were booby traps for their kids, and every home is different, and then to check that every day. To be sure for example, that grandma didn't leave something out, such as when she was boiling water for eggs in the morning not to leave the handle of the pot hanging over where a child can reach up and pull it down.

It is awareness, and the more you make parents aware, the more they begin to find other sources of injury to their children, and they are the only ones that can really prevent such injuries. But it also extends into the community, and communities begin to do things about having safety rules. Schools will begin to teach the same things that parents teach at home, and that kind of reinforcement is extraordinarily valuable.

Senator DODD. I am tempted to want to ask you about—well, let me ask you about the toy labeling legislation. I don't know if you have had a chance to take a look at it or not. I mentioned Sam Gejdenson has introduced it on the House side.

Having introduced my bill or about to introduce my bill, I am also uneasy about bills that just add to the proliferation of labeling. I mean, that can help, but I wonder if sometimes we over-emphasize the significance of that.

Have you had a chance to take a look at it, and what would be your reaction to it?

Dr. KOOP. I haven't looked at it in detail, sir, but I think we are becoming a Nation that expects labels of warning on practically everything we have. It becomes possible to become numb to labels. I think we went through that with cigarette packages. After 20 years, a Nation gets tired of seeing something that says "The Surgeon General has determined." What they want to know is what has he determined.

I think that one of the things that has been effective with cigarette labeling, although it is hard to measure, is that the purchaser never knows which of four labels he is going to read. And you might think about having the labels rotated in such a way that parents are reminded of different things.

Senator DODD. For the toys, you are talking about?

Dr. KOOP. For the toys.

Senator DODD. Yes, but you think generally it is certainly more helpful than not?

Dr. KOOP. Absolutely.

Senator DODD. Yes.

Dr. KOOP. You have nothing to lose.

Senator DODD. Without getting into the specifics of it, you might take a look at it. I would like to get your comments. Have your staff take a look at it and if you have got some suggestions, that would mean a lot.

Dr. KOOP. I would be glad to——

[Information supplied follows:]

March 6, 1989

Dr. Koop's Comments on S. 407

I support S. 407 "Toy Safety and Child Protection Act." The bill would require a label on toys intended for children over the age of 3 years that would state the minimum age of children for which the toy is appropriate, a description of the toy's harmful properties, and the potential consequences if used by children below the minimum age.

Already toys with small parts are prohibited when they are designed for children under the age of 3. In 1985, small toys or toy parts were responsible for 18 suffocation deaths and over 12,000 related injuries. Next to riding toys, the second largest category related injuries involve the ingestion or aspiration of small toys or parts of toys.

S. 407 would provide parents with appropriate information so that deaths due to toys with small parts would be preventable, as the first line of defense is knowing the risks.

Senator DODD. I can't resist asking you about parental leave. Now, I am not going to get you into a discussion of—

Dr. KOOP. I have an appointment, sir.

[Laughter.]

Senator DODD. But you spent a lifetime in pediatrics, and I am not going to ask you about a bill, but just the notion and just as a physician in terms of having parents around either during a time when a new child comes around, and also just adjusting—you talked about taking note of what is in the house even with an infant—or when a child is ill, being with them, and so forth; I mean, just that notion of parents being with children and given the demographics we have today. And, again, I am not going to ask you how you feel about S.-whatever-the-number-is on the legislation.

Dr. KOOP. Well, I will answer in the spirit that the question was asked, then. It is not in reference to accident or injury prevention that I am concerned about this, but there is no doubt about the fact that the bonding that takes place between parents and a child after birth is extraordinarily important, not only to the child, which has been proven, but I think it is extremely important to parents.

We have some nice little ancient psychological studies on fathers who were off in the service during World War II and Korea that came home to find that they had a grown child that they never had seen born and knew nothing about his or her growth and development, and there is an estrangement between that father and those children that goes on for the rest of their lives.

In addition to that, I don't think we ought to forget the tremendous benefit of the extended family. I think the saddest statistic in America concerning this issue, and reflecting on my own childhood, is the fact that only nine percent of children in America today can walk to the homes of their grandparents.

I don't know how I would have existed without my grandparents because they provided me with all those extra things that busy parents couldn't do. But all of the emotional and psychological things that we think are important are wrapped up in this business you are talking about of child and parent contact.

Senator DODD. And I presume you would add that adoption would fall under that same category as child birth?

Dr. KOOP. Absolutely.

Senator DODD. I have heard testimony from other physicians about the recovery rate of a child where a parent is around at a hospital, if they are removed from it or not. And someone said it increases the recovery rate by as much as 50 percent. Would that statistic shock you?

Dr. KOOP. No, not at all. I have spent my life doing that. I did a study one time that we never published because I didn't think the numbers were big enough and we ran out of money.

But, you know, there are children that come to a hospital, like Children's in Philadelphia where I spent 35 years, whose parents cannot be with them. They may be 60 miles away; they have four other kids at home, and so forth.

So I started a program of surrogate parenthood. We picked a mother on the ward whose child was not acutely ill and who had a little time to spare and assigned her another child that was to be hers.

Now, we didn't calculate recovery rate, but we did calculate the emotional response of the child to nurses, to doctors, and to his environment, and there was no doubt about the fact, when there was someone in a parental role interested in that child and his recovery, he was a better and happier child.

Senator DODD. That is fascinating. I thank you for your comments. Just listening to you talk about the war years, my father was at the Nuremberg trials for a good year immediately after I was born and my mother always loved to tell the story that at some point in that period of the year when I was certainly old enough to say something, anyway—I guess maybe a year-and-a-half old—that someone came and knocked on our door and asked for my mother, at which point I placed my hands on my hips and announced to the visitor that we had a father, too.

[Laughter.]

Dr. KOOP. Good for you.

Senator DODD. Even though he was not around at the time.

Dr. HOUK, I want to ask you about the lead issue, if I can. I don't want to miss the opportunity. You have spent a professional career looking at this. I wonder if you just might share with us some of the recent information you have on that particular issue.

Dr. HOUK. Since we have been very effective with the immunization programs and the immunizable diseases are basically down in this country and the infectious diseases are relatively under control—we need to keep our vigilance on that; I am not saying we should stop it—injuries, poor nutrition, and lead are the major problems of the children of this country.

Lead makes children, if I can use the expression, a little bit dumber, unable to learn. In a normal population of children, five percent will have superior intelligence; about eight percent will have intelligence judged to be inferior.

A population of children exposed to lead, which Dr. Nieldelman has so well shown—there will be no child with superior intelligence and about 16 percent judged to be inferior. And I can think of nothing societally more devastating than a population of children that has no superior intelligence, no geniuses, in it.

In the United States, through the distribution of lead through our environment, we have about two million children who have blood leads above 15 micrograms per deciliter. At 15 micrograms per deciliter, we can actually measure health effects, psychological adversities, and probably it goes a little bit lower than that.

The removal of lead from gasoline, which I believe is one of my greatest public health achievements—we are not adding more lead to gasoline. That was very, very important, but that should not let us forget that lead is widely dispersed through our environment.

There are at least 30 million houses in the United States with lead painted on the inside, and we don't have the faintest idea how many outside. Lead in the soil—and the soil comes from lead in paint on the outside of the house, the automobile; it is still there. In a few years, dust lead will be going down lower than it is now.

The food industry has voluntarily taken almost all lead out that they can possibly get out of their process. You can no longer buy lead paint for your house or your toys or your furniture, but you can still buy it and have it mis-applied.

We must get on with getting lead out of the environment because, along with injuries, it is a major cause of disability that goes on into the adult years. There is also evidence beginning to pile up, Senator Dodd, that criminal behavior in the adolescent is associated with high blood leads at the time of four, five, six years old. If that turns out to be true, then we really have escalating costs of what the lead is doing.

We as a Nation must identify and must start removing the lead, the high doses of lead from our housing stock. What we have done in the past by our lead screening programs—and I strongly support them; we need to continue that. But what we have done is use the child as a sentinel pheasant at the edge of the city. We use the child to tell us that there is lead in that environment.

We need to reverse this process and start looking at the environment and getting the lead out of the environment before we have damaged children.

Senator DODD. Well, I was shocked to read where the actual incidences of lead toxicity are going up.

Dr. HOUK. Unfortunately, 20 years ago we were concerned about lead at 60 micrograms per deciliter. Unfortunately, the more we learn about lead, the more concerned we are at the lower and lower levels.

Senator DODD. I see.

Dr. HOUK. Everybody in the world agrees that 15 micrograms per deciliter—children should not have above 15 micrograms per deciliter.

Senator DODD. That is not debatable?

Dr. HOUK. That is not debatable. Anybody that debates that is trying to obfuscate the issue. The real, legitimate debate is now on how much lower than that should it go. We know from the Nubian skeletons, first contact with some of the tribes in the upper Amazon, testing people in the Himalayas who live very high—we know that the normal blood lead level is zero. People have no reason to have lead in their body. Lead is in the body because of our putting lead into our environment.

In 1926 when the concern about lead in gasoline first began because of an occupational concern, we had added less than a million grams of lead to the environment. By 1982, we had added 5 and a half million tons of lead to the environment through the gasoline route.

Senator DODD. Well, I thank you for that information, and if there is anything we can do in terms of being helpful to promote awareness of that as well, we would like to maybe get some ideas from you. I won't take your time this morning, but if you have got some thoughts either legislatively or otherwise on how we might move further in this area, I would love to hear them and maybe we could have a separate—

Dr. HOUK. I think my thoughts are fairly well known by many members of your staff.

Senator DODD. I know they are and I appreciate that.

Dr. KOOP, there are many more questions, but I have taken a lot of your time this morning. I am very grateful to you for being here, and if you would take a look at that toy labeling bill, it is obviously

not the answer, but it may contribute in a way, and we want to do it intelligently and well; we want it to be meaningful.

I agree with you about the numbness on labeling, and I want to make sure it is going to be effective, not just be an added cost to someone and have little or no effect. So any suggestions you have on that would be most helpful to us, given your experience in this area already.

And, again, thank you for being here. Other members, I know, were anxious to come by this morning, but schedules—you know what they are like around here, and there may be some additional questions. If there are, we will submit them to you.

Dr. KOOP. Could I add a word?

Senator DODD. Absolutely.

Dr. KOOP. I would just like to make an observation that I think slips past the public's attention. You have heard Dr. Houk and he mentioned Dr. Niedelman. Now, here are two men working, one in the public sector and one in the private sector, who have made absolutely unbelievable contributions to the health of this country, and they are unsung heroes.

Dr. Houk said if there is anything he is proud of, it is getting the lead out of gasoline. But I don't think the country realizes how long he had to fight an uphill battle against industry, against prejudice, in order to get that achievement. These are people who ought to get the Nobel Prize.

Now for Dr. Niedelman I have got to put in a commercial plug. Herb Niedelman, I taught in medical school. I nurtured him as a resident, and he spent his entire life looking down the gun barrel of the problems of lead in children.

His contribution has been scoffed at. He has been ridiculed for wasting his time, but it is that building block and Dr. Houk's building block that make it possible for you to sit there and make legislation that protects the people of this country.

Senator DODD. Well, I appreciate your saying that I couldn't agree more with you. So, Dr. Houk, again, congratulations. Unfortunately, I am not in a position to award Nobel Prizes.

[Laughter.]

Senator DODD. Thank you again, both of you, very, very much.

Congressman Jim Florio is with us this morning. Jim, we welcome you. It is a special pleasure to have Congressman Florio. Jim and I, I should tell the audience, arrived in this building together 14 years ago last month as freshmen members of the House, elected in the so-called Watergate class, I guess that is how it is still referred to.

I am getting more gray than you are. Other than that observation, it is a pleasure to see you, Jim, and I apologize for the delay, but I hope that may have been helpful just to hear Dr. Koop.

STATEMENT OF HON. JAMES J. FLORIO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. FLORIO. It was extremely valuable, and I appreciate the opportunity to come to share some thoughts with you. I have a formal statement that I would like to put into the record.

Senator DODD. Absolutely, it will be a part of the record.

Mr. FLORIO. And in the interest of conserving the committee's time, let me just say that I am very pleased to be here and in a number of capacities. I suspect probably the most significant one is chairman of the House subcommittee with jurisdiction over the Consumer Product Safety Commission, as well as being a member of the Public Policy Advisory Committee of the Safe Kids Campaign.

Mr. Chairman, I am not going to recite the reasons for our being here; they have been recited. We know this is a serious problem, and I guess the only point I would echo off the Surgeon General's remarks was his observation, valid observation, that most childhood injuries can be prevented.

It is important to understand, however, that prevention can take many different forms. Education of parents and children about injury prevention and emergency response is crucial, but I want to emphasize that I don't think that, in and of itself, is enough.

There was a 1985 study by the National Research Council and the Institute of Medicine entitled "Injury in America," and it pointed out, and I quote, "Education by itself has rarely proved to be an adequate preventive approach," end quote.

The report went on to emphasize the need to design products with safety in mind. It said, and again I quote, "The most successful injury prevention approaches have involved improved product designs and changes in the man-made environment that will protect everyone," end quote.

In my view, this is particularly important for children who, almost by definition, are not always able to protect themselves. And this is why an effective Consumer Product Safety Commission is so crucial.

Of course, the Commission plays a key role in educating consumers about safe products, but it also has the regulatory authority to ensure that products are designed safely and that unsafe products are removed from the marketplace. But it must be willing to use that authority when it is necessary.

I would like to give just very briefly three examples where that has not clearly been the case. One is all-terrain vehicles, ATVs, particularly the three-wheeled variety. They have been involved in about 1,200 deaths and in over 400,000 emergency room-treated injuries since 1982.

At one point, these three-wheeled vehicles were causing 20 deaths per month; certainly, totally inexcusable. Almost half of these deaths were for children under the age of 16. While the Consumer Product Safety Commission eventually, after much urging and prodding by the Congress, reached an agreement with the ATV industry to improve safety, the agreement was particularly weak, reflecting, in my opinion, the ideological deregulatory zeal of the then leadership of the Commission.

We took off of the market these three-wheeled vehicles, but there are still 1.5 million of these three-wheeled death machines that are out there because the agreement has not provided for the opportunity to have them taken off of the market. An effective Consumer Product Safety Commission could have done much more at an earlier stage to prevent deaths and injuries.

About 170 people die annually from residential fires started by cigarette lighters, the disposable butane-type lighters. Most of these deaths are caused by children playing with the lighters. More than half of those who die are children under the age of five.

Colorful, disposable lighters are particularly attractive playthings for young children.

In reacting and, in my opinion, belatedly, to a long-pending rule-making petition from a nurse, the Consumer Product Safety Commission finally issued an advanced notice of proposed rulemaking to address the child resistance of these lighters, making them, in a sense, child-proof. Again, this is very preliminary stage that we are in.

Here is another area where a design change has the potential to prevent needless childhood injuries.

Finally, to prevent choking, the Consumer Product Safety Commission has regulations banning the sale of certain small toys or toys with small parts for use by children under the age of three.

These regulations have undoubtedly prevented many choking deaths. But the current regulations are not as effective as they could be and they have been open to criticism. Over a ten-year period, 1973 to 1983, the Consumer Product Safety Commission has reported 195 choking incidents involving 37 deaths caused by toys larger than the current requirements.

Now, some of this has been corrected through voluntary standards developed by some in the toy industry, but more needs to be done. Indeed, the Consumer Product Safety Commission is currently considering revising its longstanding, but I think inadequate regulations.

At the same time, as you have stated, better labeling of such toys is required.

A new administration and a change in leadership at the Consumer Product Safety Commission gives consumers cause for some degree of hope that there will be a better approach. With a concerted effort and cooperation between the new administration, Congress, and the Consumer Product Safety Commission, the agency should be able to rise above the problems of the last few years and embark upon a new beginning.

However, four specific areas must be addressed in order to begin to revitalize the agency. First, the administration must quickly fill the current vacancy on the Commission, a vacancy which has deprived the Commission of the quorum it needs to do business.

This is a five-member agency. The appropriations have only been available for three members. One of the three members of a five-member agency is no longer there because a former commissioner resigned and there has been no appointment.

There are two members on the Commission. It requires three for a quorum. If they wanted to do great things, they couldn't do it because they are incapable of even meeting, much less doing anything.

Second, a modest increase is needed in the agency's budget. This agency has really taken the neck over the last number of years, at the urging in some instances of the agency, as well as OMB. Eight years of budget and staff cuts have taken their toll.

Third, there must be a renewed commitment by the agency itself to its mission. And, finally, Congress needs to pass long-overdue reauthorization legislation to provide the Commission with new tools to better perform its mission, tools such as a better system of reporting product hazards and a greater role for State attorneys general in helping the Commission enforce its regulations.

I happen to be an advocate of a parallel tracking system whereby if the Federal agency doesn't do what it is supposed to do, we shouldn't be allowing or requiring the State agencies that want to perform those responsibilities to be required to sit around watching the law not be enforced.

The Washington Post recently referred to the Consumer Product Safety Commission as, quote, "the little agency that can't," end quote. I want to see that changed so that the marketplace is a safer place for our children.

As chairman of the subcommittee with jurisdiction over this Commission, I will do what I can to achieve these improvements as part of one component of our effort to reduce needless childhood injuries, and I am looking forward to working with you and with the Safe Kids Campaign on this very important task.

So I want to just commend you for this forum to provide the opportunity for all of us who share some values to lift the level of national awareness to the importance of this problem.

Senator DODD. Thank you, Jim, very much, and I appreciate all the work you have done on this as well.

What possibility do we have—I mean, I think the fact that we can't get a quorum for the Consumer Product Safety Commission obviously is the first priority. What have you heard on that at all? What is your—

Mr. FLORIO. Well, I have communicated with the new President, just calling to his attention—I realize he has lots of things on his plate.

Senator DODD. How long has this vacancy gone on?

Mr. FLORIO. Actually, Commissioner Scanlon has just resigned within the last couple of months. I will tell you that the resignation is not—they haven't done too terribly much anyway over the last number of years. Now, they are prevented from doing anything.

Previous to that when they had an opportunity of having quorums, there wasn't a lot done anyway.

Senator DODD. Yes.

Mr. FLORIO. I am hopeful that the new President, wanting to have a gentler and kinder society, will send a signal out to people with the name of the person that he sends there as someone who is serious about the mission of the agency.

Our chairman of our full committee, whom you know, Mr. Dingell, who is not usually at a loss for words, stated that this agency was brain-dead. That is unkind, but not totally inaccurate. This agency needs a mission to be fulfilled.

Senator DODD. Well, we will follow up today. In fact, I will ask the Chairman of the full committee here, to join with myself and several others, in following up with a communication to the President as well and highlight in that particular shortcoming.

You know the toy labeling bill; of course, you have been so involved in it yourself over the years. I know you heard Dr. Koop talk about the efficacy, the numbness of labeling. I have a tendency to agree.

Mr. FLORIO. Well, that obviously has some attractiveness. I guess in this particular situation the major concern is the clarity of the labeling.

Senator DODD. Yes.

Mr. FLORIO. If you are going to go through the whole process of designating what are sufficiently small parts to be a hazard to children under the age of three, you had better make sure that people, if they do look at the label, are going to understand that what is being warned about is not the fact of their child somehow not being capable of using the toy.

What you have is a situation where it says, this toy is not for sale to parents of children under the age of three. Sometimes, parents will say, well, that must mean that that is for the average child and my child, who is two, is smarter than the average child and therefore I will buy it, not fully understanding that the thing that is being warned about is not the competence of the child in using the toy, but the choking capability.

So what you have to have is not only labels, but labels that are really warning as to what the hazard is. You have got other toys that I have seen with multiple labels on them that almost appear to be contradictory.

Senator DODD. Yes.

Mr. FLORIO. You have got other labels, as you have said, that are microscopic. There is no specific designation as to whether these things have to be readable or not. So if we are going to go through the effort to label, we need some clarity as to what we are labeling for and the label should serve a purpose.

Senator DODD. I agree with you totally on that. What do you think the prospects are this year? I know you were able to get it through last year through the Energy and Commerce Committee. Are you optimistic?

Mr. FLORIO. I am, I am. And quite frankly, I am because I am hopeful that the administration will be supportive, or at least passive. Last year, we had the administration actively working in opposition to the effort to try to get a reauthorization for the Consumer Product Safety Commission.

It will be in that vehicle, by the way, that I think that most of these issues should be dealt with, as opposed to independent legislation.

Senator DODD. Yes, I agree with you on that. Let me ask you something else, too, that you have had years of experience on and working with. I suspect there are probably another two or three hearings going on this morning somewhere on Capitol Hill where some witnesses from CDC or possibly even from the Consumer Product Safety Commission are testifying about various aspects of things they could be involved in.

How do we in Congress best help people at the CDC and the Consumer Product Safety Commission to order their priorities? You mentioned the ATV issue and some others that have come up. Sometimes, those are generated by a special on TV, local TV.

On ATV, I think there was some film of an actual accident occurring which generated a tremendous interest that came from the grass roots. Do you have any thoughts on how we might help?

In a sense, I agree with you about the Consumer Product Safety Commission in terms of where they have been over the last several years. But assuming for a second we had an agency that was really interested in this and there are ten of us up here asking them to go in ten different directions, how do we get them to order some priorities so we all can do a better job?

Mr. FLORIO. Well, I think the approach has got to be as objective as possible in terms of evaluations of what is important and what is less important, realizing that everybody thinks that everything is important.

I guess the approach that I have tried to emphasize over the last couple of years is working from the perception of the fiscal realities because they will come here and they will tell you, and there is some justification for it, they don't have the resources.

I would feel a little more sorry for them if they hadn't gone in voluntarily asking for reductions over the last period of time. But accepting that as the case that they may not have the resources for everything they would like to do, that argues, in my opinion, for this dual tracking system.

Senator DODD. Yes.

Mr. FLORIO. You have got very active consumer protection agencies in the States. The attorneys general in the States have really been out on the point in many of these areas dealing with consumer protection and product safety, and if they are interested and willing to do the job when the agency at the Federal level either can't or won't do the job, I think it is fully compatible with the concept of federalism that we should provide the opportunity for the Federal agency to work.

After a period of time, failure, for whatever reason, to take any action giving them the first shot at it, then there should be the dual capability at the State level to take some action.

Senator DODD. Good point. Well, thank you again for coming over this morning.

Mr. FLORIO. Thank you.

Senator DODD. And let us stay in close touch on this. We will introduce the toy labeling bill today over here, and then I would like to work with you on that this year and see if we can't give President Bush a bill on his desk to sign that will help in this area.

Mr. FLORIO. Thank you very much.

Senator DODD. Thank you, Jim, very, very much. Thank you for your efforts.

[The prepared statement of Mr. Florio follows:]

Testimony of
the Honorable James J. Florio
Chairman, Subcommittee on Commerce, Consumer Protection,
and Competitiveness
U.S. House of Representatives
Before
Subcommittee on Children, Family, Drugs & Alcoholism
U.S. Senate
Thursday, February 9, 1989

Good morning. I appreciate the opportunity to testify today. I commend the Subcommittee and the National Safe Kids Campaign for their efforts to prevent childhood injury. As Chairman of the House Subcommittee with jurisdiction over the Consumer Product Safety Commission and as a member of the Public Policy Advisory Committee of the Safe Kids Campaign, I am pleased to join vigorously in this effort. I am particularly pleased to follow Surgeon General Koop, whose concern for children and work on their behalf has been a wonderful example for the whole country.

In many cases, childhood injury is a tragic accident that need not happen. Unfortunately, more children die as a result of preventable injuries each year than from all childhood diseases combined. One child in four will be injured seriously enough to require medical treatment this year. But, according to the Surgeon General, most childhood injuries could be prevented.

It is important to recognize that prevention can take many forms. Education of parents and children about injury-prevention and emergency response is crucial. But it is not enough. As a 1985 study by the National Research Council and the Institute of Medicine, Injury in America, pointed out, "Education by itself has rarely proved to be an adequate preventive approach." The report went on to emphasize the need to design products with safety in mind. It said, "The most successful injury-prevention approaches have involved improved product designs and changes in the man-made environment that will protect everyone." And, in my view, this is particularly important for children, because they are the least able to protect themselves.

And this is why an effective Consumer Product Safety Commission is so crucial. Of course, the Commission plays a key role in educating consumers about safe products. But it also has the regulatory authority to ensure that products are designed safely and that unsafe products are removed from the marketplace. But it must be willing to use that authority, if necessary.

Let me give you three examples. All-terrain vehicles (ATV's) have been involved in about 1200 deaths and over 400,000 emergency-room treated injuries since 1982. Almost half the deaths were children under 16. While the CPSC eventually reached an agreement with the ATV industry to improve safety, the agreement was weak, reflecting the ideological deregulatory zeal of the then-leadership of the Commission. But an effective CPSC could have done much to prevent deaths and injuries.

About 170 people die annually from residential fires started by cigarette lighters. Most of those deaths are caused by children playing with lighters. More than half of those who die are children under five. Colorful disposable lighters are particularly attractive playthings for young children. In reaction to a long-pending rulemaking petition from a nurse, the CPSC issued an advance notice of proposed rulemaking to address

the child resistance of these lighters. Here is one area where a design change has the potential to prevent needless childhood injury.

Finally, to prevent choking, the CPSC has regulations banning the sale of certain small toys, or toys with small parts, for use by children under three. These regulations have undoubtedly prevented many choking deaths. But the current regulations are not as effective as they could be. Over a ten year period, 1973-1983, the CPSC reported 195 choking incidents, including 37 deaths, caused by toys larger than the current requirement. Now, some of this has been corrected through voluntary standards developed by the toy industry, but more needs to be done. Indeed, the CPSC is currently considering revising its regulations. At the same time, better labeling of such toys is needed.

A new Administration and a change in leadership at the CPSC give consumers cause for new hope. With a concerted effort and cooperation between the Bush Administration, Congress, and the CPSC, the agency should be able to rise above the problems of the last few years and embark on a new beginning.

However, four specific areas must be addressed in order to begin to revitalize the agency. First, the Administration must quickly fill the current vacancy on the Commission - a vacancy which has deprived the Commission of the quorum it needs to do business - with someone dedicated to carrying out the mission of the agency. Second, a modest increase is needed in the agency's budget. Eight years of budget and staff cuts have taken their toll. Third, there must be a renewed commitment by the agency itself to its mission. And, finally, Congress needs to pass long overdue reauthorization legislation to provide the Commission with new tools to better perform its mission, tools such as a better system of reporting product hazards and a greater role for state attorneys general in helping the Commission enforce its regulations.

The Washington Post recently referred to the CPSC as "The Little Agency That Can't." I want to see that changed, so that the marketplace is a safer place for our children.

As Chairman of the Subcommittee with jurisdiction over the Commission, I will do what I can to achieve these improvements, as part of one component of our effort to reduce needless childhood injury. And I look forward to working with the Safe Kids Campaign on this important task. After all, our children are our future.

Senator Dodd. Our next panel is a panel of parents who are here with us this morning. I would like to ask them to join us here, and I was trying to keep an eye out here for your names as we come up.

Mr. James Dunning, a parent from Alexandria, Virginia; Ms. Judith Randlett—and if I mispronounce any names, let me know—a parent from Sandy Hook in my home State of Connecticut; Ms. Marilyn Adams from Earlham, Iowa; and Mr. Michael Kurgan from Herndon, Virginia.

First of all, let me thank all of you for being here this morning. It is not an easy thing to come here and talk about personal experiences such as these, these tragedies. But I want you to know you are providing a great service to this country by telling this story.

And too often I think we have hearings where the data is there and the experts are there, and that is tremendously helpful. I don't minimize that at all, but I think too often—Dr. Koop talked about numbing labeling—data can numb people.

And in a sense, having people like yourselves with real-life experiences here that have happened to them and their families helps tremendously in terms of making people aware of what we are talking about in human terms. So it is not an easy thing to be here this morning.

I know Senator Kennedy wanted to express his deep gratitude to all of you, and certainly other members of the committee, the people in this audience here, the media, and others, for being able to come and share with us what has happened to you and your families as a result of a lack of real effort in this avoidable injury area. So we thank you for being here.

Mr. Dunning, we will begin in the order that I have introduced you, and any statements you have prepared will be made part of the record. Try and keep the statements to a maximum of five or six or seven minutes and it would be helpful.

STATEMENT OF JAMES DUNNING, PARENT, ALEXANDRIA, VA; JUDITH RANDLETT, PARENT, SANDY HOOK, CT, ACCOMPANIED BY CHRISTOPHER CLARK; MICHAEL KURGAN, PARENT, HERN-DON, VA, ACCOMPANIED BY MATTHEW KURGAN; AND MARILYN ADAMS, PARENT, EARLHAM, IA

Mr. DUNNING. Thank you, Senator. For what it is worth, these posters over here on my left are my son, Christopher, the one on the left being during his recovery; in fact, in the later stages of his recovery from his incident, I will call it. And the one on the right is on his way to soccer stardom somewhat more recently.

August 1st, 1985, is a day my family will never forget. My son, Christopher, then four years old, was run over in front of our house by an automobile. He received injuries which, from all accounts, should have at that time been fatal.

My experience of that event started with a phone call to my office from neighbors and a frantic rush-hour drive to the local hospital. As excellent as our community hospital is, what struck me first was that nobody—nurses, doctors, nobody—would look me in the eye. A sense of bewilderment and confusion dominated the environment.

It was clear they had no idea what to do for my little boy. The decision to transfer him to Children's Hospital was made fairly quickly. The experience of watching the helicopter leave with Christopher is something I will never forget.

As we were driven by a friend up North Capitol Street to Children's, we had a glimpse of what was to come. A magnificent rainbow stretched all across the sky reaching towards Children's Hospital.

Arriving at Children's, not knowing whether Christopher was still alive, we immediately met people who seemed to be in control. They were frank and it took several days before Christopher was out of immediate danger. He remained—or, rather, we all remained at Children's for about two months.

The result of his care is nothing less than miraculous, but the miracle was manifested through human hands. Children's Hospital is one of very few pediatric trauma centers in the country, even though accidents, as you know, remain a leading cause of death for our children.

The paramedics that responded to the scene in front of my home in Alexandria were trained only a few weeks before the incident in pediatric trauma at Children's Hospital. Few other emergency medical personnel have that pediatric trauma training.

The campaign to promote child safety through education is critical to begin to prevent accidents. Pediatric EMS training must be made universal. The number of funded pediatric trauma centers must be greatly expanded because survival ought not be an accident of geography.

I thank God my son and our family received the care we did from Children's Hospital. A day doesn't go by that I don't rejoice in Christopher's special gifts, and I ask you to put the protection and survival of our children higher on our Nation's agenda.

Thank you.

[The prepared statement of Mr. Dunning follows:]

TESTIMONY OF JAMES DUNNING

**FATHER OF PEDESTRIAN/MOTOR VEHICLE
ACCIDENT CHILDHOOD INJURY VICTIM**

**TESTIMONY BEFORE THE SENATE SUBCOMMITTEE ON
CHILDREN, FAMILY, DRUGS & ALCOHOLISM, FEBRUARY 9, 1989**

It was a hot August afternoon and my 4-year-old son Christopher was playing in the backyard. My wife Nancy heard a loud thud, and rushed outside to see what had happened. She saw one of our neighbors rushing towards the street where Christopher lay bleeding. He had been hit by a car.

Christopher suffered massive injuries to his head, neck and arms. The odds were that he should have been paralyzed for life. But because of the excellent medical treatment he received at all stages of his recovery he has no disabilities whatsoever, and is a healthy 7-year-old.

We realize Christopher's safety is our responsibility. We also realize it only takes one second of not being supervised for tragedy to strike.

Children under 8 lack the judgment to safely deal with traffic. They think cars can stop immediately, that if they can see the car the driver can see them. They also cannot accurately tell where sounds are coming from, and if a car is moving toward or away from them. But closer supervision and better safety education might have prevented Christopher's accident, we must also address proper care of children who have been severely injured by motor vehicles. Christopher is lucky; only three or four children with the severe injuries he suffered have ever recovered without having some form of paralysis.

Christopher is also lucky because everyone involved did everything perfectly. My wife knew not to move him until the paramedics arrived. The paramedics who took him to the hospital had recently completed a pediatrics emergency training course. He is lucky because he lives near one of the fewer than a dozen pediatric trauma centers in the country. The first hospital he was taken to did not have the capabilities to adequately deal with his injuries. Thank God he was close enough to be airlifted to the Trauma Center at Children's Hospital National Medical Center here in Washington.

I credit the Center's expert teamwork with Christopher's dramatic recovery.

We need to make sure our children receive the best medical care possible when they are injured. It can make the difference between a healthy recovery and a life of disability. Christopher is living proof that that care can make a difference. We need to fund more pediatric EMS training for our emergency personnel. We need to help fund more pediatric trauma centers like the one at Children's Hospital National Medical Center. Childhood injury--its prevention and treatment--must be raised to a higher level on this nation's agenda.

Senator DODD. Thank you very much.

Ms. Randlett, we will go with you next, and I understand your son is with you here.

Ms. RANDLETT. Yes. This is my son, Christopher Clark.

Senator DODD. Another Christopher here. We are inundated here this morning.

Ms. RANDLETT. We would like to thank the committee for inviting us here to testify today and we are going to talk about our personal experiences.

Senator DODD. Why don't you pull that microphone a little closer to you so we can hear you? You have to dip it down a little bit. Dip it right down. You have almost got to lean right into it. I apologize to you, but that is—

Ms. RANDLETT. We are going to talk about our personal experiences with head injury and how necessary we feel bicycle helmets are.

On August 22, 1982, Christopher was 14 years old. He was going to start at New Town High School in a couple of weeks. I was at a friend's 25th wedding anniversary party. Chris was visiting with his dad and he was bicycle riding with his two step-brothers. The three boys were racing the bicycles in the street. Chris was hit by a car. He was not wearing a helmet.

It was about 9:00 p.m. when I got the call that Chris had been hit by a car and rushed to the hospital. Seven hours later at 4:00 a.m., the hospital had put him on a respirator. They had done a CAT scan. His leg was in traction.

Where there wasn't a wire or tube going into Christopher or coming out of him, he was scraped, banged and bruised. The neurosurgeon said, you may as well go home; he is not going to die tonight. That is when my husband and myself, Chris' father and step-mother made up our minds that as long as Chris was in a coma, one of us was going to be with him. So we spent a three-week vigil at the hospital. Always, one of us was with Chris.

Finally, on September 12, Chris was moved out of the intensive care unit. His skull had been fractured in three places. The most important and most damaging place was to the brain stem.

He was moved down to the rehabilitation ward and he spent his days in occupational therapy, physical therapy, and speech therapy. His left leg was still in traction and his right side had atrophied because of the accident.

Because of the fracture to his brain stem, all Chris could say was "fum." "Fum" meant everything. Life became a big game of charades. Finally, in the middle of December, Chris was allowed to come home from the hospital. We were going to start life over again; we were going to be a family again.

We thought this was going to be easier. This was the hard part. Chris came home in a wheelchair. He couldn't talk. He needed help to shower, to dress, to get up and down the stairs. We went to outpatient therapy four hours a day five days a week.

Pretty soon, Chris was getting around just fine. He was walking, dressing, showering alone. Speech was much harder in coming. Some nights, Chris would "fum, fum, fum," trying to explain something to me and we would both get so frustrated, my daughter, Teal, would have to help out. So she would take over for a few

hours. Sometimes when Chris and I were both so exhausted with one another, he would visit with his father and his step-father for a while and they would help out.

When Chris' older brother, Chipper's, friends came to our home to visit, Chris was so happy to see anybody who wasn't family or a therapist that he would hug them and kiss them and hold on to them. Chipper was so embarrassed. He was only 16 years old; it was really hard for him to deal with. So Chipper started spending more time away from home.

Finally, in September 1983, DATAHR, our area rehabilitative service, opened a special traumatic brain injury unit. That is what they specialized in. Chris went there by bus on a regular school bus and spent a regular school day there, with more therapies, intensive speech therapy. They even had a psychologist there who specialized in brain-damaged children.

The following year, Christopher went to the Foundation School in Orange, Connecticut, which specializes in learning disabilities. They have a one-to—I think probably the biggest class Chris was in was three students to a teacher.

Finally, three years after he was supposed to start, Christopher started high school. He is going to graduate in June. He has a part-time job after school in a factory. We all survived; I am not always sure how.

My daughter, Teal, is married now. My son, Chipper, just got out of the Air Force and he and Chris go to the gym and work out a couple of times a week. My little boy, Doug, is now seven years old. I wish I hadn't missed the year out of their life that Chris was in the hospital.

Chris taught us all so much. Chipper wishes he could be as persevering as his brother. Teal would like to have Christopher's sense of humor, and Doug and Chris have taught one another everything from how to talk and write to how to play chess and, I think at three, taught Douglas how to play poker because you were trying to remember how yourself.

What a terrible way to learn. If Chris had been wearing a helmet, he would not have been injured as severely. Chris is good-humored and persevering, but he lost three years out of his life. He will be a productive member of society, but he is going to have to aim lower. We don't want Douglas or any other youngster to lose time starting their life over again. We don't want anyone to have to change their dreams to match their handicap.

Doug is not allowed on his bicycle without his helmet. He knows what could happen to him. We can't change what happened to Chris and the rest of our family, but we can prevent it from happening to Douglas and other youngsters and their families. If they knew how a helmet could save their children and their families from serious head injury, maybe more children would be wearing bicycle helmets today.

Senator DODD. Well, thank you both very much. Thank you, Christopher, for coming as well.

Ms. RANDLETT. Christopher has some testimony he would like to read.

Senator DODD. Sure. Welcome. You have got to speak up into that microphone.

Mr. CLARK. My little brother has a bicycle and he is smart because he puts his helmet on before riding it. I wish I had put on a helmet before my accident. I could have been in college now to train to be many things if I hadn't been injured.

I have had problems since six years ago and maybe for the rest of my life. I would have joined the Air Force like my brother, and maybe I could have been a pilot or an engineer. Maybe I could have been a scholar or a writer or a guitarist.

I hate to start all over again. I was just a kid almost going to high school before that happened to me. Now, I have communications problems which I may have for the rest of my life.

Sometimes, someone can tell me what to do or what I—or I could get confused and do something else. Sometimes, I think I understand and then find out I can't. I am glad my little brother wears his helmet and then he rides his bicycle; I wish other kids would. I don't want them to have problems like I have.

[The prepared statements of Ms. Randlett follow:]

TESTIMONY OF JUDITH RANDLETT

MOTHER OF BICYCLE/MOTOR VEHICLE CHILDHOOD ACCIDENT VICTIM

TESTIMONY BEFORE THE SENATE SUBCOMMITTEE ON CHILDREN, FAMILY, DRUGS &
ALCOHOLISM

FEBRUARY 9, 1989

My name is Judith Randlett, and this is my son Christopher Clark. I would like to thank the committee for inviting us to testify today. We want to talk about our personal experiences with head injury, and the importance of bicycle helmet usage. My hope is that today's hearing will help other families avoid the trauma of unnecessary injury.

On August 22 1982 my son Christopher was 14 years old. He was to start high school in a couple of weeks. While I was at a friend's 25th wedding anniversary party that day Chris was enjoying his last days of summer vacation visiting with his father and riding his bicycle with his step-brothers. The three boys were racing their bikes in the street when Chris was hit by a car. He wasn't wearing a bicycle helmet.

It was around 9 p.m. when I got a call about the accident. By 4 a.m. the hospital had done a CAT scan and inserted a screw into Chris' head. His left leg was in traction, he was on a respirator and where there wasn't a wire or tube going into or coming out of him, there were scrapes, scabs and bruises. My son lay in a coma, his head fractured in three places--two in the forehead and the most serious fracture to the brain stem. The neurosurgeon said "You may as well go home, he's not going to die tonight."

For almost three weeks my husband, Christopher's father, step-mother and I kept a vigil by his bedside. When my Chris woke up someone who loved him would be near.

On September 12 Chris was moved from the Intensive Care Unit to the rehabilitation ward. He spent his days in occupational, physical and speech therapy. His left leg was broken and his right side was temporarily paralyzed. Because of the fracture to the brain stem all he could say was "Fum". "Fum" meant everything. Chris had to learn to walk, eat and talk all over again. He had to learn his own name.

Finally, on December 15, Chris was allowed to come home. Now we could get on with life. Now we could be a family again.

Now the hard part began. I brought Chris home in a wheel chair. He couldn't talk. He needed help to shower, dress and climb the stairs. We went to outpatient therapy four hours a day, five days a week.

Soon Chris was getting around fine. He learned to walk, dress and shower alone. But speech took longer. Some nights he would say "fum, fum, fum" as he tried to explain something; we would both get frustrated. I would ask my daughter Teal to please help Chris, and she would take over for a few hours. Sometimes, when it was too much for me, Chris' stepmother would take him. Chris' older brother Chip was embarrassed. Chris would hug and hold Chip's friends when they came to visit. Chip was 16 years old. He couldn't handle it. He spent as much time away from home as he could.

In September 1983 Chris went to DATAHR/TBI. He made great improvement. In September 1984 Chris went to Foundation School in Orange, Connecticut--more improvement. Three years after his accident Chris started high school. He will graduate in June. He has a part-time job in a factory.

We survived. My daughter Teal is married now. My son Chip just got out of the Air Force. My little one is now seven. I wish I hadn't missed that year out of their lives, but we have Chris. He taught us so much. Chip wishes he could be as persevering as his brother. Teal would like to have her brother's sense of humor. I've learned patience and understanding. Doug and Chris have taught me another everything from poker to chess to how to talk and write.

What a terrible way to learn. If Chris had been wearing a bicycle helmet he would not have been injured as severely. Chris may be good humored and persevering, but he lost three years out of his life. He'll be a productive member of society. He'll just have to aim lower. We don't want Doug or any other youngster to lose time starting their life over again. We don't want anyone to have to change their dreams to match their handicap.

Doug is not allowed on his bicycle without his helmet on. He knows what could happen to him, and I don't just mean punishment.

We can't change what happened to Chris and the rest of our family. But we can prevent it from happening to Douglas and other youngsters and their families. If they knew how a helmet could save their children from serious head injury, from going through what we went through, maybe more kids would be wearing helmets today.

Senator DODD. Thank you, Christopher, very much.

Mr. Kurgan.

Mr. MICHAEL KURGAN. Mr. Chairman, my name is Michael Kurgan. My son, Matthew, is on my right. My family and I are honored to be here today to discuss the traumatic accident our son, Matt, had experienced two days after Christmas, 1987, while playing with a toy model rocket engine.

Matt, who was age ten at the time of the accident, was seriously burned by a model rocket engine while he and other boys were experimenting with model rocket components. Upon launch of the rocket, the rocket engine and components spiraled horizontally off the launch area, going about 30 yards down range to reach Matt.

When it reached Matt, the rocket went down his jacket, fired another rocket engine, and then exploded on his back. Matt, although in a state of shock, realized that his upper body was smoking. He ripped off his jacket in an attempt to extinguish any remaining fire.

He and his friends ran to nearby houses for help. The local fire and rescue squad responded in minutes and began initial treatment. A decision was made to airlift Matt by helicopter from the accident site to Children's Hospital in Washington for burn trauma care.

My family clearly understands that injuries can and have occurred by not following appropriate directions or safety codes recommended for model rocketry. However, the critical issue that requires attention is the fact that a ten-year-old can purchase and use such a device and its various components without adult supervision.

Unsupervised children in the 10 to 12 age group cannot be expected nor relied upon to fully read, effectively comprehend, completely understand, and closely follow the manufacturer's directions or safety codes. This is the critical issue I believe this subcommittee, the Consumer Product Safety Commission, the manufacturers, and the National Safe Kids Campaign should focus upon.

Thank you very much, and I have a statement I would like to introduce for the record and I would be happy to answer any questions at any time.

Senator DODD. Thank you very much. We will include it.

[The prepared statement of Mr. Michael Kurgan follows:]

TESTIMONY OF W. MICHAEL KURGAN

FATHER OF CHILD BURN VICTIM

FEBRUARY 9, 1989

TESTIMONY BEFORE THE SENATE SUBCOMMITTEE ON CHILDREN,
FAMILY, DRUGS AND ALCOHOLISM

WRITTEN TESTIMONY

EFFECTS OF ACCIDENT ON MATT AND OUR ENTIRE FAMILY

The accident was very traumatic for Matt, as well as the entire family. He received second and third degree burns to approximately seven percent of his body. The burns were primarily concentrated to his back and shoulder. The burned area was somewhat more complicated than other type of burns because it resulted from an explosion to the skin, rather than direct flames. This affected the healing and scarring process.

Children's Hospital continued a very thorough burn care/treatment program for Matt. As many know, burn care is extremely painful. Matt experienced considerable pain. He remained in the hospital for two weeks. Upon his discharge, he faced several months of burn care at home, with initial weekly visits to the hospital clinic. He has received painful injections into the scar tissue, and still has two daily treatments which consist of stretching and massaging cream into the skin.

There were initial concerns that the scarring process with Matt would affect his right arm and shoulder movement. The hospital recommended a rigorous physical therapy program to continue at home. Since Matt was always very athletic, his recovery was good, and there will be no permanent limitations to his movement.

However, Matt will be permanently scarred for life as a result of the accident. He will need surgery in approximately one year to attempt to reduce the scarring further. Children's Hospital has provided exceptional care, and if it were not for the hospital, the outcome would no doubt be much worse.

FACTS PERTAINING TO THE ACCIDENT

The circumstances of the accident led my family to ask how such an accident could occur to a young boy while playing with a model rocket engine. Could it happen to other young children? These questions prompted me to investigate the facts of the accident, which produced the following results:

1. Rocket engines are recommended by the manufacturer for ages 10 and above;
2. For the use of rocket engines, adult supervision is recommended by the manufacturer for ages 12 and below, but the stores in our area do not require adult consent at the time of purchase;
3. The sale of ignition fuses (not solar ignitors) used to ignite rocket engines are restricted to age 18 or older (State/County code or law); however, solar ignitors are sold to the 10-12 age group. In Matt's case, the children (ages 9 and 10 at the time) were allowed to unwittingly buy the fuses;

4. There was a high power/thrust model rocket engine involved in Matt's accident (Estes Model D-12, maximum thrust is 9 pounds versus 48 ounces for a typical model rocket engine); and,

5. The cause of the accident was attributed to rocket engine misuse, and not following the model rocketry safety code. In essence, the boys were told they did not build an approved launch vehicle.

ISSUES

The above facts have raised several conflicting issues which I discuss below:

1. The rocket engines do not appear to be safely classified by the appropriate Federal regulatory bodies, in particular, the Consumer Product Safety Commission, if such a serious accident is possible (in particular, high power/thrust engines);

2. There appear to be regulatory gaps in the various State/County codes and regulations that allow children in the age range of 10-12 to purchase, use, or unknowingly misuse such model rocket engines and their components;

3. The different age standards recommended for purchase of separate rocket components (launch vehicle, engine, and ignitor/fuse) appear to greatly contribute to a young child's misunderstanding and potential misuse of components;

4. The recommendations on the age use of model rocket engines by the manufacturer may be improper, especially for the high power/thrust engines;

5. Although the National Association of Rocketry and the Hobby Industries of America publishes a "Model Rocketry Safety Code," young children in the 10-12 age group cannot be expected to adequately comprehend and effectively follow the code;

6. The present conditions clearly allow young children in the 10-12 age group to purchase and use model rockets without adult supervision;

7. Explosive and powerful fireworks have always been very closely regulated by various Federal, State, and local regulations. Model rocketry, the explosive power being just as dangerous as fireworks if misused, has received little formal regulation; and,

8. Various public schools actively promote model rocketry for young children in the 10-12 age group, often without clear and appropriate guidance being stressed on the need for parental supervision.

RECOMMENDATIONS

The above issues have led me to develop some specific recommendations listed below, which if implemented, may help reduce the possibility of such an accident from happening to another child in the future:

1. The U.S. Consumer Product Safety Commission should undertake a comprehensive testing program to critically evaluate high power/thrust model rocket engine safety;
2. The rocket engine manufacturers should not recommend the use of certain classifications of model rocket engines with high power/thrust (Estes D-12 for example) for the 10-12 age group;
3. Retail stores should not sell any model rocket engines and their components to children in the 10-12 age group without adult supervision present at time of purchase;
4. Legislation should be considered that would expressly prohibit the sale of such model rocket engines and their components to children younger than, or in the 10-12 age group at a minimum, without explicit adult supervision present at the time of purchase;
5. Model rocket components (launch vehicle, engine, and ignitor/fuse) should all be controlled and regulated based on only one single age standard--whatever age standard that is determined to be the safest for child use;
6. Public schools and associated model rocket clubs who promote model rocketry should stress the appropriate age limits, parental supervision, and safe use of model rocketry; and,
7. Other cognizant national associations should reevaluate the safety of model rocketry for young children ages 10-12, and develop appropriate recommendations for improvement.

Senator DODD. Matt, it is nice to have you here with us this morning. How are you doing now?

Mr. MATTHEW KURGAN. Okay.

Senator DODD. Are you okay?

Mr. MATTHEW KURGAN. Yes.

Senator DODD. No more fooling around with rockets, I hope.

Mr. MATTHEW KURGAN. No.

Senator DODD. All right.

Ms. Adams, I stepped out of order a little bit. I appreciate your being here this morning. Thank you for coming.

Ms. ADAMS. Thank you, Mr. Chairman. My name is Marilyn Adams and I am a farmer from Earlham, Iowa.

The summer of 1986 was a happy one for my eleven-year-old son, Keith. He built a tree house, he fished and camped. Keith loved to pick flowers and read, draw, swim, play baseball.

Life is different for us now because now all we have is Keith's prize possessions in our curio and in a brass chest in our living room. We keep his red bicycle in a shed not far from where an accident took his life on the farm.

Since then, I have formed a national farm safety organization called Farm Safety for Just Kids, and I am a member of the National Coalition for Agricultural Safety and Health and a sister organization to the Safe Kids Coalition.

You see, the summer ended and harvest season began, and for the very first time Keith stayed home from school to help his stepdad unload corn. He was given an adult responsibility and left unattended.

Near the end of the day, I got that phone call that we all pray we will never get. Keith was being rushed to the hospital by helicopter. I was so confused. The nurse said he was hurt in the corn. It didn't make any sense. If it wasn't the auger, then what could have hurt him?

You know, after a horrifying struggle of 24 hours for my little Keith to stay alive, he was pronounced brain dead and his death was from suffocation after he was sucked under like quicksand in a gravity wagon load of corn.

Nobody knows, nobody really knows the chain of events that led Keith to the top of the wagon that day. Maybe his hat blew off and he tried to retrieve it. But, nevertheless, my sixth-grader, who always handed me my seat belt and always wore his life jacket when he went to the pond to catch frogs, became a farm accident statistic.

Farming is the nation's most hazardous occupation, but yet the family farm is protected, if you will, from having any child labor laws or regulations, and most insurance companies exclude family members because of the high risk.

Your laws make it legal to have a little eight-year-old heavy equipment operator on the family farm where there are an estimated 300 children killed each year, and then an additional 23,000 that are maimed and mangled.

You know, a child is not a small adult. Yet, one in five farm accidents is a child.

I have got coloring books and I have designed these types of danger decals, but that is not enough. You know, we rely on the

farmers to feed our country, and the country isn't even willing to give our children so much as an elementary program to make them aware of the dangers involved in feeding us all.

I can't even find accurate statistics because this isn't work-related and it is just another kid that died on the farm that we have accepted. Why is this? What is their right to know?

I am working to increase hazard awareness and my primary goal is injury prevention. The time is right to do something and I challenge you, Mr. Chairman, and each and every one of you to find a solution for this major problem. There is nothing in this whole world that is more important than a child's life.

[The prepared statement of Ms. Adams follows:]

TESTIMONY OF MARILYN ADAMS

**PRESIDENT OF FARM SAFETY FOR "JUST KIDS" AND MOTHER OF FARM
ACCIDENT CHILDHOOD INJURY VICTIM**

**TESTIMONY BEFORE THE SENATE SUBCOMMITTEE ON CHILDREN,
FAMILY, DRUGS & ALCOHOLISM
FEBRUARY 9, 1989**

WRITTEN TESTIMONY

My name is Marilyn Adams. I am founder and president of Farm Safety for "JUST KIDS" and a farmer from Earlham, Iowa. I also serve as an ambassador to farmers, farm workers and their families for the National Coalition for Agricultural Safety and Health, and am a sister organization to the SAFE KIDS Coalition.

I am here today to represent the estimated 300 children that die in farm accidents every year in the United States and an additional 23,000 that sustain non-fatal injuries. A large number of these young people suffer long-term disabilities.

Unlike other industries, the primary hazards in farm related accidents with children do not differ from the adults in accidents. It is estimated that one in every four families is affected by a permanent disability or death caused by a farm accident and one in every five farm-related deaths is a child!

These same leading agents are:

FARM TRACTORS
FARM MACHINERY
AND SUFFOCATION IN FLOWING GRAIN.

They account for 80% of the fatalities involving both children and adults.

AGE APPROPRIATE TASKS ARE VERY IMPORTANT.

A PRACTICE OF ALLOWING EXTRA RIDERS WITH NO EXTRA SEAT, SEAT BELT, OR ROLL-OVER PROTECTION IS RESPONSIBLE FOR A HIGH PERCENTAGE OF FARM RELATED DEATHS.

YOUNG MALES UNDER AGE 16 HAVE THE GREATEST RISK OF ANY AGE GROUP.

AND, MOST KIDS WHO DIE ON THE FARM DIE ALONE BECAUSE THEY CAN'T GET HELP!

I married a farmer. I don't want to see the family farm become extinct! The only place you can raise and train a young farmer is on the farm. But we really need to do this right.

So why am I here today? Why am I part of a coalition for agricultural safety and health? It's by accident. That accident happened to my son a little over two years ago. He suffocated in a gravity flow wagon. There were no warning decals, no screens, no safety devices at all. We had no idea that trickle of grain could be so deadly. My 11 year

old Keith was one of those young males under the age of 16 that was given an adult responsibility and left unattended.

He died alone--with horrifying struggle to stay alive for 24 hours before he was finally pronounced brain dead.

The rural community has always been an ideal place to raise a family. I can't think of any other place I'd rather be.

But on the other hand farmers and their families are maimed and mangled far more often than other workers. A child is not a small adult!

Yet we treat them as such. Farm kids are faced with hazards far more dangerous than commonly believed.

THE GRUESOME ACCIDENTS

THE TRACTOR RUN-OVERS AND ROLL-OVERS

EQUIPMENT ENTANGLEMENTS

Imagine one of your loved ones having arms or legs torn off their body. This accident may have been prevented with a guard.

Or a little 3 year old being chopped up in a silage chopper. Maybe her daddy would have seen her if she only had known to wear a red sweatshirt.

The family farm serves as a home work-site and a playground.

A greater emphasis needs to be placed on the development of safety standards for farm equipment and handling hazardous chemicals. A system similar to the warning for household products should be developed for the farm site hazards.

Recent studies with the National Coalition for Agricultural Safety and Health suggest establishing statewide data collecting systems for farm injuries to identify specific problems and in developing injury prevention programs.

Prevention programs which provide health assessments, environmental evaluations and safety education for farmers and their children need to be developed and implemented at the community level. These programs should involve health providers, education and human services as well as farm families, farm organizations, advertisers and journalists.

Increased public awareness of this issue and motivated changes in behavior need to be developed.

In addition, health professional training programs should include rural health issues as part of their required course work.

We at Farm Safety for "JUST KIDS" are specifically concerned with the prevention of farm-related injuries and fatalities involving children. WE ARE WORKING TO INCREASE HAZARD AWARENESS. OUR PRIMARY GOAL IS INJURY PREVENTION.

We have young farmers working on family farms with not only no child labor laws to govern them;

1. They need no permit to operate heavy equipment.
2. They need no license or certificate to handle, haul or apply dangerous chemicals.
3. They need NO FORMAL TRAINING WHATSOEVER!

Farming is THE MOST HAZARDOUS OCCUPATION in the United States. We all rely on farmers to feed our country. And yet, the country isn't willing to give our children so much as an elementary program to make them aware of the dangers involved in feeding us all.

Why is that?

What is their right to know?

Sweden and Canada have found ways to cut down on their fatalities. The time is right for the United States to address this issue. Now that you are aware of some of the hazards to our farm children--I challenge each and everyone of you to find a solution.

Senator DODD. Thank you, Ms. Adams, very much. We appreciate your being willing to come forward today and talk to us about it.

Let me just ask, if I can, a few questions. Then I want to defer to my colleague from Iowa, Senator Harkin. You have heard Dr. Koop this morning; I presume all of you were here to hear Dr. Koop talk about the statistics. You have heard us talk about the bill, the child toy labeling effort, which is just one piece of this.

And I think you would all agree—I presume you would, anyway—that it is prevention and education that really—in fact, that is the thrust behind the toy labeling legislation. I wonder if you might just share with us as parents what other things can be done. What education tools do you currently have as parents to prevent injuries such as those that have happened to your children? Where would you place the effort, if you could?

Begin in any order. Mr. Dunning?

Mr. DUNNING. Well, I think the most important contribution, obviously, from our perspective, from my wife, Nancy's, and mine, is awareness. We live on a relatively little quiet street. We all come from different places and under different circumstances to this hearing.

But I see kids, friends of my son's and friends of my daughter's, still riding their bikes in the street, even though they witnessed, in the case of Christopher, his accident.

The parents in the neighborhood seemed to be obviously more cautious just for a brief period of time, a few months after the accident. And yet I still see kids completely unsupervised playing in the street, riding their bikes in the street and jeopardizing their lives and safety.

I don't know how to reach out to parents at the local elementary school or in Alexandria, but some kind of awareness program such as is being conducted by Safe Kids has got to help. And I don't think it requires legislation and it doesn't require penalties of law, but it certainly will be tremendously helpful if some attention can be brought to the long-term morbidity of kids who get hit by cars.

Senator DODD. Well, what about just things like this? You cannot turn on a sitcom or a television program in this country that has been made in the last couple of years, and no matter who gets into an automobile they put on a seatbelt, the police, whoever else. It is just part of the industry there as part of the effort that it is included as part of the scripts that you put on a seatbelt. People don't jump in and out of cars.

Would it make a difference, for instance, if we could convince the television industry, for instance, in the production of programs that kids watch that kids on bicycles wear helmets, I presume, things like that? Is that the kind of thing that you think may—so it affects the children as well where they see this becoming acceptable.

I presume, Ms. Randlett, part of the difficulty—and maybe Matthew would care to comment on this, but putting those helmets on—are you considered a geek if you wear a helmet, Matt? What do you think of kids who wear helmets? Is it considered kind of the in thing or the out thing to put on a helmet if you ride a bicycle?

Mr. MATTHEW KURGAN. It doesn't matter.

Senator DODD. It wouldn't make that much difference?

Mr. MATTHEW KURGAN. No.

Senator DODD. So someone who wore a helmet wouldn't be considered someone who is weird?

Mr. MATTHEW KURGAN. No.

Senator DODD. Are you sure?

Mr. MATTHEW KURGAN. Yes.

Senator DODD. All right.

I mean, that sort of thing; Ms. Randlett, do you want to comment on that?

Ms. RANDLETT. I think possibly the PTAs and the schools could be more involved, too, in safe bicycle programs. Now, I know that my son's helmet cost \$60 and he has almost outgrown it. So I wondered if the PTA couldn't be involved in some kind of an exchange system. Somehow, the schools should be involved in bicycle safety.

Senator DODD. These are how much? How much do these helmets cost?

AUDIENCE PARTICIPANT. Twenty to seventy dollars.

Senator DODD. Which one is \$70?

AUDIENCE PARTICIPANT. The one that is in front of Ms. Randlett.

Senator DODD. Which one, the one that looks like it has got a lion or a zebra, a tiger?

AUDIENCE PARTICIPANT. Yes.

Senator DODD. What is that made of that is on the top of that?

AUDIENCE PARTICIPANT. It is a light cover; it can be exchanged in other colors.

Senator DODD. Oh, for other colors. Which one is the \$20 one?

AUDIENCE PARTICIPANT. I believe the one in front of Mr. Kurgan.

Senator DODD. There are three of them there. Which one?

AUDIENCE PARTICIPANT. The white one. The Li'l Ranger, I believe, is about a \$16 to \$17 helmet available in stores.

Senator DODD. Ms. Adams, did you want to comment about education?

Ms. ADAMS. Well, I feel that we need to have good advertisements, safe ads, public awareness, and it needs to be somehow into the school system, maybe even brought in by an outside source.

Senator DODD. Mr. Kurgan, do you want to make a comment?

Mr. MICHAEL KURGAN. Yes, Mr. Chairman. The Surgeon General kind of hit on what I would mention. Basically, a lot of the labeling, and so forth, will make a statement that parental supervision is recommended. However, a young kid like Matt can go in a store and buy something. Parental supervision is recommended, but he can go out and use that and I am not around.

So the, quote, "parental supervision is recommended," doesn't really carry a lot of impact with it, and I think the Surgeon General kind of alluded to that. Maybe what would be better done on labeling is "parental supervision is required" or a child like Matt can't go in a store and buy something like that, a device, without a parent with them. So I think that is a critical issue.

Senator DODD. You are from which State?

Mr. MICHAEL KURGAN. Virginia.

Senator DODD. Virginia. What do the State laws in Virginia say about this?

Mr. MICHAEL KURGAN. They are somewhat contradictory. In the case of model rocketry, there are various ways you can launch the vehicle. One of them—you have to be 18 years of age to buy a fuse.

Another way to launch a vehicle is with an igniter fuse and you can be 10 to 12 to buy that.

However, both are sold over the shelf in the same manner. In Matt's case, he picked up a fuse with his friends and went over and bought it, and you had to be 18 to buy it. So there are contradictory regulatory standards between Federal and State and local.

Senator DODD. Well, again, I personally thank all of you for sharing your experiences with us, Ms. Adams, particularly. I know that all the parents here had these terrible accidents, but Chris and Matt are here. So particularly to come and not only to tell your story, but also to say what you are doing, is a great tribute to you and I personally thank you for taking the time to be here with us.

Senator HARKIN.

Senator HARKIN [presiding]. Thank you, Mr. Chairman. I apologize for arriving a little late, but I did want to be here especially for this panel, and especially for Ms. Adams from my home State of Iowa and, in fact, from a town not too far from where I was born and raised, Cumming, Iowa, not too far from Earlham.

And as someone who—myself, when I was a kid, I worked on farms all the time when I grew up, and I guess you don't really think about it too much until it touches you personally.

I can just tell you, as a father of two young kids myself, one of my kids had an accident once, came close, and that is what really rings the bells, really rings the alarms, when something like that really happens. Fortunately, it wasn't very serious.

But I see so many young people working on farms today and the statistics you came up with—300 are killed every year, 20,000 injured, on farms. And it is true; a family farm is one on which everyone works. The mother works, the father works on the farm; the kids all pitch in and help. It is still the most dangerous occupation in America, farming. More accidents occur on the farm than any other single occupation in America, percentage-wise, too. Yet, there has really not been much done to really address that problem of child safety in agriculture.

I really appreciate your being here and telling that story. I know how tough it is to do that, and I just want you to know how much I appreciate it. But if out of this something good can come and we can prevent a similar thing from happening, your being here and your testimony will have been well worth it.

Education, aside from all of the different things we can do—we can put covers on augers; we can take all these steps that we have taken in the last 20 years to make things a little bit safer on farms.

But, you know, I was just thinking. You just said something about elementary education. In the Earlham school district, is there any education at all—most of the kids that go there are from farms, or even if they live in the small community they work on farms, probably, in the summer time.

Is there any designed course that kids have to take dealing with safety, I mean, starting with grade one?

Ms. ADAMS. Nothing.

Senator HARKIN. Not a thing?

Ms. ADAMS. I haven't found anything in any State that is even available.

Senator HARKIN. See, that is not really our domain, is it, for the Federal Government? That is a State thing, but I am just wondering if perhaps we shouldn't think about maybe encouraging a State or a few States to come up with some demonstration programs that we might want to assist in, to design a course of study for elementary kids in rural areas who are exposed to dangers of working on the farm.

Has your organization thought about promoting anything like that?

Ms. ADAMS. We have thought about that a lot, and we do promote it. We are just seeking help right now to try to get some ideas pulled together, and Iowa should play the lead in this because we are one of the biggest farming States and we don't even keep track of the statistics even for the adults.

Senator HARKIN. Tell me more about your organization. You started this organization?

Ms. ADAMS. Yes, I did.

Senator HARKIN. How long ago?

Ms. ADAMS. It has been over a year now, but I just recently in October opened up an office. I was doing this along with my full-time job.

Senator HARKIN. In Earlham or in Des Moines?

Ms. ADAMS. In Earlham.

Senator HARKIN. In Earlham.

Ms. ADAMS. But now I have, of course, an office and a more formal organization, and we have expanded nationwide.

Senator HARKIN. You see, if there is one area—and I say this for the benefit of others who are not involved in agriculture as we might be. I don't think there is any other area of work, employment, in this country where kids actually participate as much with adults as they do on the farm. I can't think of any.

Ms. ADAMS. There just isn't any and, of course, our farm is a playground, it is a homesite, and it is a work site all in one. And even the kids that aren't working on the farm are—you know, a lot of the mothers work now and the dads are babysitting and we have got these toddlers out there around grinding feed and various different things. It is really a scary place to raise a family, but yet it is the best place, too.

Senator HARKIN. I would like to work with you. I will get my staff to work with you on thinking about getting something going in maybe one, two, or three rural States on demonstration programs for designing a program of study for elementary school kids on farm safety, just dealing with farm safety. I never thought about it before. You just made me think about it.

Ms. ADAMS. Well, thank you.

Senator HARKIN. Thank you.

I was reading this stuff about the rocket, actually, and I see all the head sets here. I chair the handicapped subcommittee of this full committee; it is a counterpart to Senator Dodd's subcommittee.

And one of the things that I have become extremely interested in in the last couple of years that I have chaired this subcommittee is the increasing number of head injury people in this country and the minimal amount of things that can be done to prevent it, like wearing helmets for bicyclers, roller skaters, ice skaters, and things

like that, just a simple thing like that and what it can do to really protect someone. My 12-year-old daughter does not ride a bicycle any longer without wearing a helmet. So it is one of the things that I have learned from chairing this subcommittee.

It is an epidemic, as someone said, in children's injuries and death. When you think about the minimal things that could be done, just the little things that could be done to prevent it—well, those are just my thoughts on it. If anyone else has any other things that you want to bring up for the benefit of my own knowledge or thinking, I would appreciate hearing from you, Mr. Kurgan, or anyone else, Mr. Dunning.

When are you going back to Iowa?

Ms. ADAMS. Next Friday night. I am here for ten days.

Senator HARKIN. Well, I would appreciate it if you would get a hold of my staff. Let us follow up on this. I want to see if we can move ahead on some of this. This committee also has jurisdiction over education, too. So we will pull them all together.

[Laughter.]

Senator HARKIN. Thank you.

The next panel is the Honorable Anne Graham, Commissioner and Acting Chair of the Consumer Product Safety Commission; Dr. Mark Widome, Chairman of the Committee for Accident and Poison Prevention, American Academy of Pediatrics; Dr. Martin Eichelberger, Director of Trauma Services, Children's Hospital, here in Washington; and Dr. Susan Gallagher, Director of the Childhood Injury Prevention Resource Center at the Harvard School of Public Health.

Thank you all for being here this morning. The chairman had to be unavoidably absent here for a while and we will move right along. I will first recognize the Honorable Anne Graham, Commissioner and Acting Chair of the Consumer Product Safety Commission.

I am sure the chairman has already asked unanimous consent for all statements to be made part of the record in their entirety, and so I will just recognize you, Ms. Graham, for any opening remarks that you may wish to make.

STATEMENT OF HON. ANNE GRAHAM, COMMISSIONER AND ACTING CHAIR, CONSUMER PRODUCT SAFETY COMMISSION, WASHINGTON, DC.; MARTIN R. EICHELBERGER, M.D., DIRECTOR OF TRAUMA SERVICES, CHILDREN'S HOSPITAL, WASHINGTON, DC., AND CHAIRMAN, NATIONAL SAFE KIDS CAMPAIGN; MARK D. WIDOME, M.D., CHAIRMAN, COMMITTEE ON ACCIDENT AND POISON PREVENTION, AMERICAN ACADEMY OF PEDIATRICS, HERSHEY, PA; AND SUSAN S. GALLAGHER, DIRECTOR, CHILDHOOD INJURY PREVENTION RESOURCE CENTER, HARVARD UNIVERSITY SCHOOL OF PUBLIC HEALTH, BOSTON, MA

Ms. GRAHAM. Thank you, Senator. I am pleased to appear today to testify before the subcommittee on what I believe is one of the highest priorities this country, and certainly the Consumer Product Safety Commission can have, the protection of children from needless injury.

The reasons for a strong Federal commitment to measures that both protect children and advance their welfare are obvious. Children are the future of the Nation. The Consumer Product Safety Commission is, in my view, one of the primary agencies that can help share our Nation's response to the issues that affect the particular concerns of children and their safety.

The Commission's involvement in childhood safety has been and will continue to be significant. This commitment is perhaps best demonstrated by the fact that about half the Commission's budget is devoted to addressing children's and juvenile product hazards.

Before I address the specifics the Commission is taking in product areas that pose particular threats to children, I would like to say a few words about the factors that I believe are important in the childhood accident prevention field.

First, and most obviously, safety is best served when we remember that children are children, not adults. Often, there is a tendency to overestimate the capabilities of a child because we are trying to encourage the best in the child.

In situations where dangers presented by products simply are not obvious or when the population at risk is particularly vulnerable, like children, I believe the Commission needs to play a strong role.

Addressing latent product hazards or risks presented to population groups such as the young, in my view, is an area for reasoned Government intervention. Americans have the right to believe the products they buy are safe.

With children, the most obvious area where the Commission can and does make a safety difference is, of course, in the area of toys. Consequently, this is an area where the Commission has been extremely active.

The Commission has issued mandatory safety standards covering electric toys, bicycles, pacifiers, infant rattles, toys with sharp points and edges, lead and paint used in toys, and toys for children under three which should not have small parts. Further, the Commission is reviewing, with an eye toward strengthening, a regulation that bans toys intended for use by children under three that have or contain small parts.

Another area of note is the Commission's program to stop hazardous toys from entering the United States in the first place. The Commission and the United States Customs Service have established a cooperative effort to inspect imported toys at 21 ports of entry.

The Commission, working with the information and samples received from the Customs agents, has confirmed safety violations in 242 shipments, enabling Customs to seize a total of almost 900,000 non-complying children's toys in the past year. Obviously, keeping unsafe toys from children by seizing them at the docks is the best protection the Commission can provide.

Children are further protected through the Commission's recall efforts. In fiscal year 1988, a total of 168 toys and children's products were recalled or subject to other corrective actions. The Commission has also made progress in its effort in reducing injuries associated with nursery equipment, playground equipment, and poison prevention.

Finally, an area, that I think is very important and where the Commission is beginning to make some progress is with items that are not toys, but are used by children as toys, resulting in injuries and deaths. A primary example of this is lawn darts.

I believe that the Commission's decision to ban lawn darts is a positive step toward preventing children injuries. The limited value lawn darts may have as a recreational product is far out-weighed by the serious injuries they cause children. The estimated average of hospital emergency room-treated injuries is 675 a year; 81 percent of the victims are children under 15.

Another product that has received widespread attention, in large part because of the tragically high numbers of injuries they have caused to children, are ATVs. Since 1982, there have been over 1,000 deaths and 380,000 emergency room-treated injuries associated with ATVs. Almost half of these injuries and deaths have occurred to children under 16 years of age.

While ATVs clearly are not toys, they have been actively promoted and marketed as fun family vehicles and motorized babysitters. I believe the only safe ATV for a child is one that is out of gas.

In sum, the Commission is active in preventing childhood injuries. We have accomplished a great deal, but I believe much more can be done. I intend to continue to strongly advocate measures that ensure childhood safety.

The Safe Kids Program is a fine example of this. With this program, Government, industry, and individuals are successfully working together to protect children. In this regard, I would like to commend the Academy, which has worked steadfastly to support the Commission's mandate, and I would like to thank the committee for holding this hearing today. The issue is an extremely important one; it is literally a cornerstone of this country's future.

Thank you.

[The prepared statement of Ms. Graham follows:]



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

Opening Statement

before

United States Senate

Anne Graham, Acting Chairman

Consumer Product Safety Commission

Subcommittee on Children, Families, Drugs and Alcoholism

February 9, 1989

I am pleased to appear today to testify before the Subcommittee on Children, Families, Drugs and Alcoholism on what I believe is one of the highest priorities this country and certainly the Consumer Product Safety Commission can have: the protection of children from preventable injury.

The reasons for a strong federal commitment to measures that both protect children and advance their welfare are obvious: children are the future of this nation. The Consumer Product Safety Commission is, in my view, one of the primary agencies that can help shape our nation's response to the issues that affect the particular concerns of children and their safety. The Commission's involvement in childhood safety has been, and will continue to be significant. This commitment is perhaps best demonstrated by the fact that about half of the Commission's budget is devoted to addressing children's and juvenile product hazards.

Before I address specific actions the Consumer Product Safety Commission is taking in product areas that pose particular threats to children, I would like to say a few words about the factors that I believe are important in the childhood accident prevention field. First, and most obviously, safety is best served when we remember that children are children, not adults. Often there is a tendency to overestimate the capabilities of a child because we are trying to encourage the best in the child. For example, parents will often buy toys for their child that are explicitly labeled as being intended for older children. The parent does this because he or she believes the child is "above average", or will grow into the toy or even that the toy can also be used by the child's older sibling. What the parent does not realize is that the age recommendation may also be based on specific safety

studies and considerations. For example, one reason a toy may be labeled for children over 3 years old, is that it may have small parts that can be ingested by and possibly choke a younger child. Thus, educating the parent is extremely important in this field.

In situations where dangers presented by products simply are not obvious or when the population at risk is particularly vulnerable, like children, I believe the Commission needs to play a strong role. Addressing latent product hazards or risks presented to population groups such as the young is, in my view, an area for reasoned government intervention. Americans have the right to expect that the products they buy are safe.

With children, the most obvious area where the Commission can and does, make a safety difference is, in the area of toys. Consequently, this is an area where the Commission has been extremely active. There are approximately 150,000 different toys available in the United States, and some have caused deaths and severe injuries to children. The Commission estimates that in 1987 there were approximately 131,000 toy related injuries treated in hospital emergency rooms, the vast majority (105,000) of which involved children under the age of 15. Additionally, in 1987 it is estimated that over 500,000 injuries occurred to children under 15 due to accidents involving bicycles (382,000), skateboards (68,000), sleds (22,000) and rollerskates (44,000).

When children ingest a small part from a toy they may choke. To address this major hazard, the Commission issued a regulation which became effective in 1980 that bans toys intended for use by children under three that have or contain small parts (16 C.F.R. §1500.18(a)(9)).

Further, the Commission has issued mandatory safety regulations covering electric toys, bicycles, pacifiers, infant rattles, toys with sharp points and edges and lead in paint used in toys.

Another area of note is the Commission's import surveillance program to stop hazardous toys from entering the United States. The Commission and the U.S. Customs Service have established a cooperative effort to inspect imported toys at ports of entry. The Commission, working in cooperation with customs has collected and tested samples confirming safety violations in 242 shipments, enabling customs to seize or otherwise prevent entry of a total of almost 900,000 non-complying children's toys at ports of entry in the past year. Obviously, keeping unsafe toys from children by seizing the toys at the docks is one of the most effective forms of protection the Commission can provide.

One of the primary methods by which the Commission protects children is through its recall authority. In Fiscal Year 1988 alone, over 168 products intended for children were recalled or subject to other corrective actions. Out of that number, 70 products were recalled because of small parts violations, 33 because of rattle violations, 8 because of excessive lead in paint and 2 because of sharp points or edges.

The Commission has also made progress in its efforts in reducing injuries associated with nursery equipment. The Commission has mandatory safety requirements for cribs and baby walkers. A number of voluntary standards have been developed covering infant products including cribs, play gates, play-pens, high chairs and strollers. These mandatory requirements and voluntary standards address hazards ranging from strangulation from crib corner-posts to entrapment due to hardware failure and product design.

Poison prevention is an area where I believe the Commission has made significant progress in reducing the number of childhood injuries and deaths due to accidental poisonings. Since 1972 when the first child-resistant packaging regulations became effective for certain drugs, the number of prescription drug fatalities to children under 5 has been reduced from 96 per year to 40 (1986). Additionally, from 1972 to 1986 there has been a 73% reduction in the number of deaths to children under 5 due to ingestion of all household chemical products and a 96% reduction in aspirin related deaths.

As these figures illustrate, child-resistant packaging has saved many lives. However, there is still a need to ensure that new parents, and especially grandparents are aware of hazards posed by household chemicals and drugs. In a 1986 study, 17% of all medications involved in accidental ingestions belonged to the child's grandparents. An additional 15% of the medications belonged to others who were not members of the child's immediate family.

The problem of children accidentally ingesting medications found in a grandparent's house can most likely be attributed to the fact that older people have a great deal of difficulty using child-resistant packaging. Further, older Americans are often frightened or frustrated by their inability to get a child resistant cap off their medicine containers so they may not buy child resistant packaging, or they may leave the safety caps loose, or dispense with the caps entirely. However, safety closures that senior citizens could remove, but children could not, would help to solve this problem and stimulate greater use of child resistant packaging. To that end, in 1987, the Commission funded grants to three prominent universities which developed approximately 20 new and innovative designs for such closures. Some of these new designs are now being evaluated and tested to ensure that they are, in fact, child resistant and still useable by the elderly.

Another potential threat to childhood safety is posed by playground equipment. The Commission has designated playground equipment as one of the priority projects for Fiscal Year 1989, in large part because of the serious injuries and number of deaths that are associated with these products. Most injuries occur to very young children. In 1987 alone, the Commission estimated that almost 200,000 injuries and at least 8 deaths were attributed to playground equipment accidents. Approximately 40 percent of the injuries were to children under 6. The extent of this problem can be seen by the fact that many recreational programs nationwide are being cancelled because of insurance and legal problems arising from accidents in playgrounds.

The Commission believes that standards, can reduce playground injuries. For example, a young child whose head is entrapped between a guardrail and a climbing platform that is inadequately spaced may die in as little as five minutes. An adult supervising a group of children cannot observe every child, every minute of the day. Once playground equipment is designed, installed, and maintained adequately, supervision can help prevent behavioral-type accidents.

Finally, an area that I think is very important and where the Commission is beginning to make some progress is with items that are not toys, but are used by children as toys resulting in injuries and deaths. The primary example of this is lawn darts. I believe that the Commission's decision to ban lawn darts in May of 1988 is one of the Commission's important successes in preventing childhood injuries. A lawn dart is an example of a product which is not intended as a toy, but ends up being used as a toy. The limited value lawn darts have as a recreational product is far outweighed by the serious injuries they cause to children. The estimated average number of hospital treated injuries related to lawn darts is 675 a year. Over three-fourths of the injuries were to children under 15.

Another product that has received widespread attention, in large part because of the tragically high numbers of injuries and deaths they have caused to children is ATVs. Since 1982, there have been over 1,200 deaths and 400,000 emergency room treated injuries associated with ATVs. Almost half of these injuries and deaths have occurred to children under 16 years of age. While ATVs clearly are not toys, they were promoted and marketed as fun family vehicles and as "motorized babysitters." Widespread use of ATVs by children as young as 6 years old is evident in the data.

The "Safe Kids" program is a fine example of government and the private sector working successfully together. The issue is an extremely important one. It is literally a cornerstone of this country's future.

Senator HARKIN. Ms. Graham, thank you very much.

Next, we will go to Dr. Michael Eichelberger.

Dr. EICHELBERGER. Yes, sir. Senator Harkin, I appreciate the opportunity to sit before you today and I would like to submit my written comments for the record and then take the liberty, if you wouldn't mind, to use a projector for a few seconds to graphically illustrate several issues.

Senator HARKIN. That will be fine. Just go right ahead, then.

Dr. EICHELBERGER. I would just like to introduce you to what I do. I am a trauma surgeon. I spend most of my career taking care of injured children. I have been doing this for the last ten years, and in the last year-and-a-half to two years I have been involved in becoming more acquainted with the issues of injury control, and I would like to maybe explain to you a little bit about the transition and why that came about.

What we are talking about today, sir, are children less than 14 years of age, and I don't want to get beyond that because I think there is a different set of problems. But all of us are aware of the sensitivity that has been demonstrated to you by the different families and the individuals that have come before you today.

But I think one thing, Senator Harkin, that is important is that we have this sense of not being in control. You are asking for solutions to problems that I think are there; it is a matter of how we go about establishing the process of getting that accomplished.

On a daily basis, these children are subjected to a variety of injuries that start out potentially with a crash site. Many of these children are burned. As you may or may not be aware, many kids fall, they drown, they suffocate, and many of them are poisoned.

The problem that we have is how do we make some kind of consistent sense out of this whole issue. What I would like to suggest to you is that it starts, from my perspective as a trauma surgeon, from the standpoint of caring for these kids in the field.

You can see this crash victim right here is a patient of mine, who in the morning—this is a seven-year-old—in the morning, was going to school. Her brother was driving the car. He went into an intersection. He was killed instantaneously. She remained in the hospital for three months and was a brain-injured child.

This type of an individual is quite fortunate, a four-year-old that was just described to you. This is Mr. Dunning's son, who I had a the privilege to care for. He has a major injury to his spine and could have potentially been a quadriplegic, which would have been, for you and I, a major responsibility as a community member to provide care for this youngster because many of these families that have come today are families that have the wherewithal and the intellectual capability and the financial and economic capability to provide the care for these kids. There are many families that don't have those capabilities.

This young lady is a young lady who was wearing her seatbelt. She was involved as a six-year-old in a motor vehicle accident and she is not so fortunate. She has a major spinal injury to her lumbosacral spine, which is the lower portion of the spine.

Presently, she is paralyzed below the belly button. She has problems with her continence, both of stool, both of urination, and she

is a youngster who in the future is going to require rehabilitation and has a disability that hopefully we could have prevented.

The real solution, sir, I might add, is the whole concept that the vaccine for trauma care and injuries in the United States is prevention. The problem is that everybody, at least as projected today, has reflected the fact that it seems very complicated, and it is. It is a complicated issue, but I think there are some simple solutions.

First of all, individuals have to become personally involved and care about it, and that includes you and your colleagues, because I think it is important not to just look at it from what the Government can do, but what we can do as individuals in the community.

Secondly, we have to educate each other as to what can be done because I think you need a lot of that, as well as anybody else, as to what kinds of things we can provide to the community that are effective and, economically, we can responsible to our constituencies.

The other thing that is important is to provide some type of public policy, whether it be wear helmets, whether it be seatbelts. Here is a young lady who wore a seatbelt, had a major injury. She may not have died because the major cause of brain injury in the United States is crashes in motor vehicles.

The problem with this youngster was that she didn't have the three-point fixation in the back seat. Now, because of a recent lawsuit that was carried out here in the State of Maryland, the Ford Motor Company was sued, and most American companies in the United States this coming year in 1989 will have three-point fixations in the back of their automobiles. Right now, you can't find an American car that has that. So that is a policy, that is an attitude from a corporate standpoint that we need to engender in the community.

To solve this problem, because they do go across many areas, the Safe Kids Campaign was developed to put together probably the most important aspect of the campaign, our local coalitions that focus on what is available in the local communities throughout the United States to help them on a national basis get into the community to change those policies that affect their communities directly and them as individuals as directly to provide a better and safer net for children, who I think are being victimized in many ways because they are not in a safe environment.

It may be a simple thing like changing the pitch of a road. It may be something like putting a stop sign on a road. It may be covering a particular area on a farm that is going to protect that child.

I think that those kinds of innovative, grass-roots efforts that are based on volunteerism and not on the Federal Government dispatching a particular law that most people aren't going to do anyway—it is the kind of thing where we have got these seatbelt laws in place and people don't wear the seatbelts.

So to me, as a trauma surgeon, I think it is an absolute tragedy that we have families day in and day out that I see ask, what could we do. Well, what we need to do is to galvanize that interest and make it stick, and hopefully we can involve you along with this coalition effort and use your expertise and your committee's expertise, because we have the will, but the policies won't change until

the individuals at the grass-roots level really understand that they can make a difference.

Thank you for the opportunity to speak to you, sir.

[The prepared statement of Dr. Eichelberger with an attachment follows:]

ORAL TESTIMONY OF DR. MARTIN R. EICHELBERGER
CHAIRMAN, NATIONAL SAFE KIDS CAMPAIGN

before the

SENATE SUBCOMMITTEE ON CHILDREN, FAMILY, DRUGS, & ALCOHOLISM
FEBRUARY 9, 1989, 9:30 A.M.
WASHINGTON, D.C.

Thank you for holding this important hearing and placing childhood injury, the number one killer of kids, on the U.S. Senate agenda.

I see the tragedy of childhood injury every day. Young children die, others are permanently disabled, their lives and their families' lives are changed forever because of injuries -- injuries that could, AND SHOULD, have been prevented. I see the tragedy mirrored in the faces of parents -- like the ones we see here today -- parents who ask me, who ask themselves, "What could we have done?"

No responsible surgeon -- no responsible human being -- can witness this tragedy without asking, "What can I do?" "How can I safeguard my children -- ALL children -- from injury?" "How can we, as adults, give every child the opportunity to live and play, free from the unnecessary risks of life-threatening injury?"

At Children's Hospital National Medical Center, we developed a pediatric Trauma Center to meet the special needs of severely injured children. Our educational programs have reached over 60,000 paramedics and emergency medical personnel across the country, teaching them how to recognize and correctly treat childhood emergencies. Injured children are referred to our Trauma Center by local hospitals throughout the metropolitan Washington area. And we secure restorative care for the rehabilitation of the injured child and family as they re-enter their home, school, and community environments. Yet, we are only one of about 10 pediatric Trauma Centers in the country with the resources, staff, and capacity to offer these special services to children.

Still, millions of injured children continue to be treated at hospitals and Trauma Centers each year. The tragedy continues. In 1953, before the introduction of the oral polio vaccine, 1,450 Americans of all ages died from poliomyelitis; 15 thousand more were disabled -- and the nation was outraged. This crippling disease was conquered not by treatment, but by

prevention. Today, some thirty-five years later, our nation and our children are threatened by an equally menacing specter. Last year approximately 8,000 children died from injuries and more than 50,000 were disabled. The injury epidemic, like polio, can best be combatted through prevention and control. We have the technology we need to win this battle; what we lack is a unified effort.

But before I talk more about prevention, let me show you some tragic consequences of our failure to advance a national injury control effort. These are disturbing pictures, but they provide a vivid example of the terrible suffering inflicted upon our children — suffering that will only increase if we do not fully commit ourselves to a national injury control campaign.

In each case, the injuries you will see could have been prevented.

SLIDES

The need to prevent these tragic injuries is clear. And all of us — doctors, parents, researchers, and law makers — need to be part of the solution. The risk to our children is too great. Sadly, most parents don't understand this risk.

Last year, we conducted a nationwide survey of parents. We found that when parents were asked to name the risks to their children that they most feared, 43% mentioned drugs and 37% said kidnapping. Parents should be concerned about those important issues, but it is vital to note that 35 times as many children under 15 die from preventable injuries as are affected by kidnapping or drug-related deaths.

That's why we started the National SAFE KIDS Campaign — an all-out effort to unite America in the fight against childhood injury. The Campaign is a working example of what can be accomplished when the public, private and non-profit sectors work together. It uses a systematic approach to injury prevention that incorporates education, public policy and community action initiatives. The Campaign has also worked to unite and strengthen injury control efforts that previously had been disjointed and often under-funded.

The National SAFE KIDS Campaign is an example of enlightened corporate citizenship by Johnson & Johnson — a commitment of 5 million dollars over 5 years. The Campaign enjoys funding support, technical expertise and public policy leadership from the National Safety Council. The National Coalition includes 60 public and private organizations which commit time and resources — organizations such as the American Academy of Pediatrics, the Consumer Federation of America, the Boy Scouts, the American Home Economics Association, the National Association for the Education of Young Children just to name a few. The Campaign has helped organize 60 local SAFE KIDS coalitions in 35 states across the country. Each of these local coalitions conducts grass-roots activities to develop community commitment to injury control.

Because the problem of injury is complex, its solution is necessarily multi-faceted. We must start by changing the way people think about injury. Injuries are not "accidents;" they are predictable and they are preventable. We must influence decision-making in our communities – how we enforce child passenger safety seat laws, where and how we build roads and sidewalks, and how we ensure adequate fencing around swimming pools. We are talking about how we design our environment and consumer products in response to this major epidemic. And we are talking about funding continued research to identify on-going child safety problems.

We need your help in setting the standards, in providing the leadership, and the national will to make this a safer society for our children – children who will live or die by the decisions we make. Thank you.

NATIONAL COALITION OF PRACTITIONERS FOR CHILDHOOD INJURY PREVENTION
Written Testimony for the U.S. Senate
Public Hearing on Childhood Injuries

SENATE LABOR AND HUMAN RESOURCES COMMITTEE
CHILDREN, FAMILY, DRUGS AND ALCOHOLISM SUBCOMMITTEE

Washington, D.C.
February 9, 1989

Prepared for the National Coalition of
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by

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National Coalition of Practitioners for Childhood Injury Prevention

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New York
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Oklahoma
South Carolina
Utah
Wisconsin

County Health Departments

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Universities and Schools of Public Health

Harvard
Indiana
Johns Hopkins
Washington

Foundations

Education Development Center, Inc., MA
Amherst U. Filder, MN

Hospitals

Boston City, MA

Written Testimony for the U.S. Senate Public Hearing on Childhood
Injuries

February 9, 1989

SUMMARY Recognizing childhood injuries as the leading cause of death in America's children, the National Coalition of Practitioners for Childhood Injury Prevention recommends that federal funds be committed in at least three priority areas -- (1) Establishing an institutional base for injury control at state and local levels; (2) Training for those responsible for delivering injury control services; and (3) Implementing injury prevention programs. It is urgently recommended that funding be commensurate with the seriousness and magnitude of this unnecessary and preventable childhood problem. The return on investment would be a lower incidence of childhood injury deaths and disability, and a reduction in the billions of dollars injury costs society each year.

INTRODUCTION The following testimony on childhood injuries is presented on behalf of the National Coalition of Practitioners for Childhood Injury Prevention. This group of professionals comprises physicians, epidemiologists, biostatisticians, nurses, health educators, psychologists, social workers, academicians, emergency medical services technicians and other public health professionals from state and county health departments, non-profit corporations, medical centers and schools of public health in 17 states. Each of these practitioners, whose views are represented here, has hands-on experience in working to prevent childhood injuries.

The National Coalition of Practitioners for Childhood Injury Prevention welcomes the opportunity to participate in this public hearing.

The Senate Committee on Childhood Injuries, under the leadership of Senator Dodd, is to be commended for the active role it has undertaken to embrace the underrecognized problem of childhood injuries. Injuries due to falls, house fires, motor vehicle crashes, drownings, assaults, etc., are not random, accidental, uncontrollable acts of fate. Injuries are not inevitable: they are understandable, predictable, and preventable. Injury control may be achieved by implementing longstanding principles, methods and tools similar to those utilized in the prevention of communicable diseases.

Childhood injuries remain the leading cause of death in children and adolescents. As health professionals from across the U.S., our concern arises from these issues: the injury toll is enormous; their costs are exorbitant; and progress is hampered by lack of resources to apply the growing science of prevention that is available to address this problem.

EXTENT OF PROBLEM

In a recent letter to the Governors of each State, Surgeon General Koop proclaimed that injuries have reached epidemic proportions. He emphasized that "more children die from injuries than from all childhood diseases combined --- and that 8,000 children will die this year and 50,000 will be permanently disabled by injuries, most of which could be prevented."

According to statistics published by the National Safety Council for 1985, the most recent data available, injuries are the leading cause of death among persons ages one to 37. Among persons of all ages, injuries are the fourth leading cause of death, claiming over 145,000 lives each year. Injuries exact an enormous toll as the leading cause of years of potential life lost before age 65. They account for 4.1 million years annually, more than cancer and heart disease/stroke combined.

According to the National Health Interview Survey conducted by the National Center for Health Statistics in the U.S. Public Health Service, of the 62.4 million injuries suffered in the U.S. in 1986, about 28 million (45%) of the victims were under 25 years of age. These children died from motor vehicle crashes, falls, and fires and burns. Drowning, firearms, poisoning, suffocation from ingestion of food and other objects, and child abuse contribute significantly to childhood injury mortality as well. Among adolescents, this picture is even more disturbing. Motor vehicle accidents are the leading cause of death, but homicides and suicides are the second and third leading causes of injury death. Among black Americans, homicide is the leading cause of death for men ages 15-44.

COSTS

For all age groups, the National Safety Council estimates there were 62.5 million injuries serious enough to require medical attention in 1985. The estimated costs of injuries that year were \$107 billion.

Disabling injuries such as brain and spinal cord injuries require long term, costly rehabilitative care. In 1987 there were 8,800,000 disabling injuries in the U.S. of which 350,000 resulted in permanent impairments. Moreover, 25 percent of all emergency room visits are due to injury; injuries account for 99 million visits to physicians each year; and one out of eight hospital beds is occupied by an injury victim. And, while a dollar amount may be placed on the cost of care arising from injuries, other costs such as a family's suffering are incalculable. The costs are spread throughout our society to individuals and families, businesses of every size, and government at every level.

PROGRESS

A recent study by Dr. Fred Rivara (Harborview Injury Prevention Research Center, Seattle) estimated that the nationwide implementation of only 12 proven prevention strategies could reduce childhood injury deaths by 29 percent in the U.S. These prevention strategies include proper utilization of child automobile safety seats, use of motorcycle and bicycle helmets, motor vehicle air bags, smoke detectors in the home, four-sided barriers around swimming pools, and strict regulation of handguns. Each of these measures is a simple technological intervention that is proven effective and easy to implement with little cost. Such research has advanced our understanding of the injury problem and what can be done to reduce it. As practitioners, however, we face severe constraints in attempting to implement these and other findings.

Recommendations

The National Coalition of Practitioners for Childhood Injury Prevention highly recommends that resources appropriated for the following measures would begin to impact upon the practice of injury prevention and control. The priority areas include institutionalizing injury control programs, training, and implementing injury control strategies.

The first priority area is for long-term and adequately staffed INJURY CONTROL PROGRAMS at the state and local levels.

To be effective, injury control must be integrated into state and local health agencies, and community programming. Federal funds would enable states to designate a lead agency devoted to injury prevention and control with adequate staffing. In turn, state support for injury prevention and control interventions at the local level is needed. Cooperation among federal, state and local agencies is imperative in effecting community-based prevention and intervention programs. However, this cannot be done without the help of outside resources. Most states simply cannot afford to bear the full burden of funding their own injury control programs. Responsibility for providing these resources must be shared by public and private sources, including federal and state governments, foundations, and corporations.

The first step has already been taken to create an institutional base to address the injury problem. At the recommendation of the 1985 report, "Injury in America: A Continuing Public Health Problem," Congress established the Division of Injury Epidemiology and Control

in the Centers for Disease Control (CDC). This, however, is not a panacea and has done little to channel adequate resources to the state and local levels.

A federal model of institutionalization that could be replicated through the CDC is the longstanding injury prevention activity of the Department of Transportation's National Highway Traffic Safety Administration (NHTSA). NHTSA has provided both funding and technical assistance for injury prevention projects carried out through state offices of highway safety. These state offices then subcontract with local traffic safety boards, law enforcement agencies, and various organizations including public health departments.

Similarly, permanently establishing injury control programs in state health departments could be accomplished by mandating federal funding, similar to State Title V Maternal and Child Health Block grants. This mechanism would provide the funding needed to integrate priority childhood injury control activities and provide for long-term planning.

Due to Public Health's strong multi-disciplinary base, a system-wide mechanism is readily available to channel resources for the permanent establishment of injury control programs. The barrier to this concept is financial commitment. Surgeon General Koop states: "... because injury has not been treated systematically as a preventable disease, it hasn't received either attention or funding commensurate to its severity. For many injuries, we currently have tested-strategies which will work if only they are implemented."

The second challenge is TRAINING

According to the landmark publication Injury in America -- A Continuing Health Problem (1985), "The shortage of health professionals and other scientists with relevant training is a major impediment to injury control."

At present, there are only a few academic courses available in schools of public health to prepare students as injury control specialists. Even fewer courses are available in medical schools and schools of nursing. There are only a few short training institutes and summer graduate courses available to train professionals in injury prevention. Practicing health professionals have so few training opportunities that most learn on the job, with no injury control resource person available to provide guidance.

Training is urgently needed in the following areas:

- Basic concepts of injury control (including establishment of a common vocabulary)
- Effective prevention and intervention strategies
- Injury epidemiology (including "sentinel event" investigation of injury and death)

- Opportunities for establishing cooperative goals, objectives, and methodologies across the many disciplines involved in injury control, including public health, criminal justice, engineering and public safety

- Measures for evaluating injury control programs

Because of the multi-disciplinary nature of the injury control field, there is a great need for training by non-injury professionals. For example, developmental adolescent experts can provide valuable insight in developing a well balanced strategy for preventing injury among at-risk adolescents. Training provides a forum for such exchanges.

The third major need is to TEST AND EVALUATE PREVENTION PROGRAMS

Researchers and program developers should increase efforts to develop and test new interventions, especially in the areas of interpersonal violence and suicide. There is a great need to design intervention programs with specific, measurable objectives; combine education, engineering, and enforcement countermeasures; evaluate the interventions; and widely disseminate the results. Recent federal support has established Injury Prevention Research Centers at five nationally recognized universities and demonstration projects to implement a range of injury prevention strategies in a variety of settings. These include playground injury programs in public schools in Utah; bicycle safety programs in the State of Washington; hospital data-based injury surveillance projects in the Carolinas; burn and

scald prevention in Minnesota and New York; and violence prevention in Massachusetts and California, among others. While these federal efforts to fund public demonstration projects are to be commended, they fall far short of being adequate to address this problem.

To summarize, additional funding needs to be appropriated in order to implement three priority activities to effectively reduce childhood injuries: (1) establishing long term and adequately staffed injury control programs at the state and local levels; (2) training for those responsible for delivering injury control services; and (3) further development of prevention programs.

Much has been learned about the causes of injuries and ways to prevent them. However, much work remains in injury control to develop and mature this field. Throughout its development, measures must be undertaken to sustain progression, and to avoid regression.

The National Coalition of Practitioners for Childhood Injury Prevention believes that consideration for additional funding and implementation of the recommendations made in this report will optimize success in overcoming death and disability in America's children due to unintentional injuries, interpersonal violence and suicide.

Thank you for this opportunity.

Senator HARKIN. Very good. Thank you very much, Doctor.

Dr. Mark Widome, did I pronounce that correctly?

Dr. WIDOME. Yes, thank you, Senator Harkin. My name is Mark Widome. I am in the practice of general academic pediatrics and I am an associate professor of pediatrics at the Pennsylvania State University College of Medicine. I am also Chairman of the Committee on Accident and Poison Prevention of the American Academy of Pediatrics and I am here today in that capacity.

I have submitted some written comments for the record. I would like to take the next few minutes to give you an overview of some of the important areas of injury to pediatricians, to parents, hopefully to Congress, and to the Federal Government—areas that I think there is a role for partnership between the Federal agencies, Congress, physicians, parents, and the community at large.

The first area that I would like to address is the area of motor vehicle occupant fatalities to teenagers. Senator, although 1,000 pre-teens die in motor vehicles each year, this number is overshadowed by the 7 or 8,000 older teenagers that we lose on the highways every year.

The problems of alcohol use and night time driving all but define a syndrome, the effects of which are well known to pediatricians and trauma surgeons; that is the syndrome of recreational driving.

We should recognize that, per mile driven, teenagers are more than twice as likely as drivers age 30 to 54 to be involved in alcohol-related crashes. We should also keep in mind that half the teenage driving deaths occur between 9:00 p.m. and 6:00 a.m.

This terrible waste of human life could be dramatically reduced if we took several simple steps, and I will list only three. The first is strict and consistent enforcement of drunk driving laws. The second is to consider raising the age of driving or phasing in the driver's license rather than giving full driving privileges at the time of the 16th birthday. Licensure could be phased in over several years, keeping the youngest, the least mature, and the least experienced drivers off the road at the highest risk times, and those times are very late at night—10:00, 11:00, 12:00, 1:00 and 2:00 in the morning.

The third is we need to have a greater measure of crashworthiness in our automobiles. Automatic crash protection such as air cushions will be a valuable benefit to all drivers, but they are needed not just for the driver, but for all front seat occupants. The other thing we need is much better side crash protection in the automobiles, and this is technologically feasible.

The second area that I would like to address is the area of bicycle-related head trauma. Bicycle injuries are very common; most are not severe. However, we should realize that there are about 500 children who die each year riding bicycles.

Less commonly understood is the fact that 80 percent of these bicycle fatalities are associated with head trauma. Seventy thousand children are treated in emergency rooms each year for bicycle-related head trauma.

The ability to protect children when they are riding their bicycles has already been mentioned at these hearings; namely, the consistent wearing of bicycle helmets. Bicycle helmets are recommended by the American Academy of Pediatrics, by the Safe Kids

Campaign, by the National Head Injury Foundation, and by the Bicycle Federation of America.

What is the role for the Federal Government? Right now, there are no standards for crashworthiness in bicycle helmets. Unfortunately, all of the bicycle helmets on store shelves are not safe ones. All the bicycle helmets will not protect children in a spill from a bicycle.

What we need is Federal standards for helmet crashworthiness. The Academy of Pediatrics is now taking measures to petition pertinent Government agencies to implement a uniform and effective bicycle helmet standard. This will assist families in assuring that children are not subjected to preventable head trauma.

The third area that I would like to address is the area of three and four-wheeled recreational vehicles, the all-terrain vehicles that we have heard about at these hearings already.

Senator, you know that since 1982, all-terrain vehicles have taken 1,100 lives. They have caused nearly 400,000 injuries. Half the toll has been to children under the age of 16. We have a brief video to give you an idea of how heavy and powerful and unstable these vehicles are.

[Videotape shown.]

Dr. WIDOME. As you can see, these vehicles make no accommodation at all for the handling characteristics and the limitations and the capabilities of the people who drive them. We, as pediatricians and as surgeons, see fractures, internal injuries, brain injuries. We often see death.

These vehicles differ from two-wheeled vehicles because they go over, unlike two-wheeled vehicles that slide out and away from under the driver, these fall on top of the driver. These are vehicles that are defective in design and are inappropriate for use by children.

As you may know, last year the Consumer Product Safety Commission and the Justice Department entered into an agreement with the manufacturers. The American Academy of Pediatrics feels that this agreement, which bans the sale of three-wheel all-terrain vehicles, is really totally inadequate.

And I might mention that it was approved over the valid objections of Commissioner Anne Graham. This agreement ignores the several million hazardous vehicles that are in the hands of consumers. These are vehicles that have a usable life span of six or seven years.

What do we need to make some progress with regard to injuries on the all-terrain vehicle? We need to get the vehicles that are out there out of the hands of children. Furthermore, we need provisions to assure that in the future recreational vehicles cannot be brought to market without the manufacturers first demonstrating that their products meet performance and design standards to assure that hundreds of children won't be injured and thousands permanently disabled.

The fourth issue that I would like to address is the issue of residential fire deaths. Five thousand people die every year in this country in house fires. There are 19,000 injured; there are \$3.4 billion in property damage.

Cigarettes are involved in as many as half of the residential fire deaths. They are responsible for perhaps 1,500 pediatric deaths and 7,000 pediatric injuries. These fires typically occur at night when a person smoking a cigarette slowly drifts off to sleep, drops the lit cigarette onto the bedding or onto the sofa. By the time the fire breaks out, everyone is asleep.

I would like to make this panel aware that cigarettes vary greatly in the temperatures at which they burn and the length of time they stay lighted before self-extinguishing. Some popular brands of cigarettes are likely to ignite upholstery; others are much safer.

Many lives could be saved and injuries prevented if the Consumer Product Safety Commission or some other Government agency were given jurisdiction to regulate cigarettes as consumer products. We have seen great benefit from the fire safety standards for children's sleepwear. We could expect comparable benefits from fire safety standards for cigarettes.

The other fire safety issue that I would like to address is that of the disposable butane lighter, easy to light, inexpensive to buy. Adults light them with one hand. Children can light these with two hands, children as young as two and three years old.

Each year, 140 children die from fires started with these lighters; 125 of these victims are under the age of five. The majority of the fires are started by children playing with butane lighters behind sofas and in the bedrooms. These could be prevented by promulgation of safety standards requiring that they be designed so that they are child-proof, so they can't be lit easily by children.

The fifth area that I would like to address is that of toy safety, and I would like to speak briefly about small parts of toys and other household objects and the risk of choking.

You have heard earlier today that in 1984, 271 children died from choking. Small parts, whether they be from toys or other household products, are a major cause of choking in pre-school children.

Right now, there is a standard called the Small Parts Standard which is administered by the Consumer Product Safety Commission. It says that any toy part that fits into this cylinder is a banned hazardous substance if it is intended for children under the age of three. Toys that fit into this cylinder have to be labeled "not appropriate for children under the age of three."

We see two problems. One problem is there are still many toys on the market that you can buy in any part of this country that are obviously for children under three that are flimsy, that fall apart, that have small parts that children can choke on.

The second problem is the labeling is often incorrect. This product has small parts in it. It is labeled for children ages one-and-a-half and up. Here is another, an obvious baby rattle that falls apart and has lots of small parts. I have boxes of these toys at home. They are easily available. The regulations are not being enforced.

The second problem is the regulation is probably inadequate. The Consumer Product Safety Commission, in a study over a ten-year period, found 71 choking incidents, including 14 deaths, caused by products that meet the standard. The problem is this tube is too small. We need a larger tube; we need a more stringent standard.

The sixth area I would like to address is an area that we have also heard about, and it is pertinent to your home State of Iowa, Senator Harkin. That is the problem of rural injuries, children living on farms.

We know that the death rate from unintentional injury for persons living in rural areas is approximately twice that for persons living in our largest cities. Farming is the second most hazardous occupation in America, exceeded only by underground mining.

The child labor laws that protect children from hazardous urban employment do not extend to protect children on farms. Farm machinery such as tractors, wagons, combines, forklifts, corn pickers, are not subject to Federal safety standards. Nearly 300 children and adolescents die in farm injuries each year; 23,000 suffer injuries.

The American Academy of Pediatrics suggests three avenues of intervention. The first is to institute model injury prevention programs tailored to the needs of rural children.

The second is there is much that needs to be done in upgrading emergency medical services for children who live in sparsely populated areas. The third is another look at the safety of farm equipment and the appropriateness of use of farm equipment by children on farms.

Senator, I won't take much more of your time. The final issue that I would like to bring to your attention is one that has not been discussed today, and that is the issue of firearms.

Each year, there are several thousand young people who commit suicide with firearms. More than 1,000 firearm murder victims in this country are under the age of 19. More than 150 of the victims are under the age of 12. There are 400 unintentional firearm fatalities among children each year in this country.

Children are being killed in schoolyards with semi-automatic weapons. We hear from our trauma centers that there has been an increase of 300 percent in the number of children treated in major urban medical centers from gunshot wounds.

There is an emerging pattern in this country of young children being shot in retaliation for the gang activities of their older siblings. Senator, we are obviously doing something wrong. There is no evidence that public education alone will work.

Our country is lamentably unique in the Western world both in gun violence and the availability of guns. We have twice the number of gun homicides and suicides as Latin America, nearly five times that of Canada and Europe. A resident of Seattle is five times more likely to be murdered with a handgun than is a resident of Vancouver, just 140 miles to the north.

It is indefensible for us to overlook the 4,500 deaths, the 13,000 to 22,000 injuries, many to innocent children, simply because of strong political pressure. American families devastated by the loss of a child to firearm violence deserve better leadership than that.

In conclusion, I would like to say a word about Federal funding. While the fiscal 1988 appropriation in support of injury initiatives was a terribly deficient \$6.9 million, fiscal year 1989 appropriations are roughly \$22 million. These monies will be used for research, training, and demonstration projects through the Centers for Disease Control. They will look at acute care, biomechanics, epidemiol-

ogy, rehabilitation, and prevention. They will look at traffic injuries, intentional injuries, falls, poisonings, burns, and drownings.

We need to see continued growth of this Federal funding. The CDC, we feel, is the appropriate agency to coordinate this activity, but we would urge you not to ignore the important work of the National Highway Traffic Safety Administration, the Office of Maternal and Child Health, and the National Institute of Child Health and Human Development.

In conclusion, I would say there is much that can be done by the Congress. There is a promising role for both Congress and the Federal agencies, but these agencies, including the Consumer Product Safety Commission, need adequate funding to do their work, to see us through to end what is truly a modern epidemic.

Thank you very much.

[The prepared statement of Dr. Widome follows:]



American Academy of Pediatrics



TESTIMONY

BEFORE THE

SUBCOMMITTEE ON CHILDREN, FAMILY, DRUGS AND ALCOHOLISM

SENATE COMMITTEE ON LABOR AND HUMAN RESOURCES

ON

CHILDHOOD INJURY PREVENTION

Presented by

MARK D. WIDOME, M.D., F.A.A.P.

February 9, 1989

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Good morning Mr. Chairman. My name is Dr. Mark Widome. I am in the practice of general academic pediatrics, and I am an associate professor of pediatrics at the Pennsylvania State University College of Medicine at Hershey. I currently serve as chairman of the Committee on Accident and Poison Prevention of the American Academy of Pediatrics, and I am here today on behalf of my 37,000 colleagues in the Academy, who are dedicated to the promotion of infant, child and adolescent health.

The extent of the problem of childhood injuries

Pediatricians recognize childhood injury as the major threat to the health of American children. Each year there are about 8000 unintentional injury deaths to children ages 0-14. That number is more than doubled if you extend the age range to 19 year olds and include the 7000-8000 older teenagers we lose in automobile crashes each year. When you add to that the 2000 annual suicides and 3000 annual homicides involving young people, injuries annually claim the lives of some 28,000 children and teenagers in this country.

Injuries account for almost half the deaths in the preschool years, more than half the deaths among school-age children, and nearly four out of five deaths to persons ages 15-24. Injuries kill six times as many children as cancer, which is the second leading cause of childhood death. Injuries

account for more deaths among persons ages 1-34 than do all diseases combined.

While the injury death count is high, the toll of non-fatal injuries is, of course, much higher. Injured children account for 350,000 hospitalizations and nearly 10 million emergency room visits each year. One out of every nine children will be hospitalized for injury before his or her 15th birthday.

Childhood injury is costly, both to families and to society. Direct costs of acute care alone for injured children and teenagers are estimated by the Office of Technology Assessment to be \$2-3 billion annually. If you add to this long-term care, the costs are substantially higher. Injuries to children also result in huge indirect costs, owing to years of potential life lost and productivity foreclosed. Unintentional injuries account for 2.3 million years of potential life lost. Add the lost productivity due to intentional injuries -- a major public health problem in teenagers -- and this country forfeits more than 3.7 million person-years of productive life to injuries. Injuries, both intentional and unintentional, disproportionately affect the young and the poor. The prevention of injuries deserves our urgent attention.

The causes of injuries are known

It is a grim paradox that of the leading causes of death in children, injury is the one that is perhaps the best understood, and it is certainly the one that is most preventable. While the underlying mechanisms of cancer, heart disease and AIDS are only partially understood, the mechanisms resulting in injury have been well understood for decades. It is truly tragic that thousands of children die each year from diseases, but it is a greater tragedy that we lose so many more thousands as vehicle occupants, as pedestrians, and as the result of injuries in the home -- because these deaths we know how to prevent.

The means to prevent many childhood injuries are readily at hand

Perhaps the greatest obstacle to reducing the damage from injury is a persistent belief among many that injuries are random, unpredictable events growing largely out of human error. Injuries are neither random nor unpredictable. We have at hand the ability to prevent the majority of pediatric injury deaths by the application of sound principles of public health. But to do that, we must insist that injury problems be studied objectively and scientifically. We, most importantly, must separate our efforts at injury prevention from our efforts to assign blame or determine guilt. Finger-pointing has not helped solve public health problems

in the past, and it will not help solve this one.

When I refer to injuries as a public health problem, I emphasize the word "public." It is a problem that affects us all, and its causes are deeply rooted in our society, our technology and our man-made environment. As a health problem, injuries constitute an epidemic. The injury epidemic is no different from disease epidemics of the past, which in every case has come under control as a result of concerted public effort. As communities and as a nation, our first step must be to decide that we can no longer tolerate death and disability for thousands of our children whose misfortune is perfectly preventable.

It would be impossible for me to discuss today the full range of injury problems that confronts our children. Instead, I propose to examine a few of the major areas that merit public attention and intervention.

Motor vehicle occupant fatalities to teenagers

Although there are 1000 pre-teens who die in motor vehicles each year, this number is overshadowed by the more than 7000 teenagers who are killed as vehicle occupants. Fully 23 percent of all passengers who are killed in motor vehicles die when a teenager is driving. Alcohol and nighttime are two glaring risk factors. Together they all but define a

syndrome well known to pediatricians: recreational driving. Per mile driven, teenagers are more than twice as likely as drivers ages 30-54 to be in alcohol-related crashes. In addition, half the teenage driving deaths occur between 9 p.m. and 6 a.m. This terrible waste of human life could be dramatically reduced by the simultaneous application of several interventions:

1. Strict, consistent enforcement of drunk-driving laws.
2. Raising the age of driver licensure, at least for certain kinds of driving. Licensure could be phased in over several years, keeping the youngest, least mature, least experienced drivers off the road late at night -- the time of highest risk.
3. Requiring that automobiles have a greater measure of crashworthiness -- automatic crash protection. Air cushions will be of enormous benefit to drivers, but they are needed in all front-seating positions. Better side-crash protection is needed as well.

Bicycle-related head trauma

Bicycle injuries are common; most are not serious. However,

about 500 children die each year riding bicycles, and 80 percent of those deaths are the result of head trauma. An additional 70,000 children are treated in emergency rooms each year for bicycle-related head trauma.

Bicycle helmets can prevent three out of four serious head injuries to children. It is a simple intervention that is infrequently applied. The Academy recommends that all bicyclists wear helmets. Promoting the use of bicycle helmets among children is as well a major priority of the Safe Kids campaign, the Bicycle Federation of America and The National Head Injury Foundation.

Federal attention is needed to help protect children from head trauma in bicycling, as well as in other recreational activities. Not every bicycle helmet offered for sale is a safe one. There are currently no federal standards for bicycle helmets, as there are for motorcycle helmets. We would get more children into better bicycle helmets if there were federal standards for helmet crashworthiness. The Academy is now taking steps to petition government agencies to implement a uniform, effective bicycle helmet standard, which will assist families in assuring that children are not subjected to preventable head trauma.

Three-and four-wheeled recreational vehicles

The 1980s have brought to parents the needless hazard of the all-terrain vehicle (ATV). These three- and four-wheeled motorized vehicles have, since 1982, taken 1100 lives and have caused nearly 400,000 injuries serious enough to warrant emergency room treatment. Nearly half of the toll has been to children under the age of 16.

ATVs are heavy, powerful and unstable. They violate every principle of safe product design in that they make no accommodation in their handling characteristics for the limitations and the capabilities of the riders for whom they are intended. ATVs frequently tip over during routine maneuvers and at routine speeds. Furthermore, they are designed to be unforgiving of the driver when they do roll over. In an ATV mishap, several hundred pounds of heavy machine fall on top of the child; this is in contrast to a fall from a two-wheel vehicle where the vehicle slides out and away from the rider. ATVs offer the child's body no protection. As a result, pediatricians see fractures, internal injuries, brain injury and often death.

Last year the CPSC and the Justice Department entered into an agreement with ATV manufacturers to halt the sales of new three-wheel ATVs and to institute a public education campaign. The AAP believes that this is a totally ineffective and ill-advised agreement, and, I should add, it was approved over the valid objections of CPSC Commissioner

Anne Graham.

The agreement will not protect children. It all but ignores the several million hazardous vehicles in the hands of consumers, vehicles that have an average usable life span of six or seven years. Used three-wheel vehicles are still for sale on dealers' lots, and there is now a brisk business in private sales of ATVs among individuals. New four-wheelers can still be sold as recreational vehicles for children.

Childhood ATV injuries and deaths will continue to mount in 1989 unless the Congress or CPSC directs that a system of refunds be instituted to help remove from circulation those vehicles that have been purchased for use by children. The ATV must be regarded as a defective product. Further restriction on the sale of these vehicles is warranted and necessary.

As a final note, the Academy hopes that the federal government will learn from this decade of ATV tragedy, and that it will make provisions to assure that, in the future, recreational vehicles cannot be brought to market without the manufacturers first demonstrating that their products meet performance and design standards, and thus assure that hundreds of children will not be killed and that thousands will not be permanently disabled.

Residential fire deaths

Notwithstanding the easy availability and wide use of smoke alarms, which can and do alert families to imminent danger, each year 5000 people die in house fires. There are 19,000 injured, and there is \$3.4 billion in property damage. Cigarettes are involved in as many as half of the residential fire deaths. They are responsible for perhaps 1500 pediatric fire deaths and 7000 pediatric injuries. These fires typically occur at night when people fall asleep and drop lighted cigarettes onto upholstery or bedding. By the time the fire breaks out, everyone is asleep.

Cigarettes vary greatly in the temperature at which they burn and the length of time they stay lighted before self-extinguishing. Some popular brand of cigarettes are likely to ignite upholstery, while others are much safer. Many lives could be saved and injuries prevented if the CPSC or some other government agency were given jurisdiction to regulate cigarettes as a consumer product. We have seen great benefit from fire safety standards for children's sleepwear; we could expect comparable benefit from fire safety standards for cigarettes.

A related problem that I wish to draw to this panel's attention is that of residential fires started by children playing with disposable butane lighters. These inexpensive,

colorful plastic lighters can be easily ignited by preschool children using two hands. Each year 140 children die in fires started this way; 125 of these victims are under the age of five. The fires often are started in the bedroom where sheets and blankets easily ignite, or while playing behind the living room sofa, where, when a fire starts, escape is difficult.

The majority of the fires started by children playing with butane lighters could be prevented by the promulgation of safety standards requiring design modifications rendering these lighters child-resistant.

Toy safety

In 1984, 271 children died from choking. Small parts, whether from toys or other household products, are a major cause of choking in pre-schoolers. Current CPSC regulations under the Federal Hazardous Substances Act specify that certain toy and products intended for small children are "banned hazardous substances" if they present an unreasonable risk of choking. We have learned that the standard is inadequate. A CPSC study found that in one 10-year span, 71 choking incidents, including 14 deaths, occurred from choking on objects that are of dimensions that would pass the small-parts safety standard. The AAP has urged the CPSC to reexamine the small-parts standard, so that children will be

better protected. Also, toys which have small parts and are intended for older children need to be more conspicuously and accurately labeled as to their choking hazard -- to assure that they don't find their way into the hands of younger children.

Another hazard that we would urge the CPSC to address promptly is that of strangulation caused by dangerous crib toys (toys that are suspended across the side rails of cribs). The CPSC is aware of at least 30 deaths related to these toys, which become an attractive and dangerous nuisance as soon as a child can get up on his or her hands and knees. Children's necks become entangled in cords attached to these toys or children become entangled in clothing hooked over the toys. The CPSC should issue safety standards for these toys, banning those that present a risk of strangulation or entrapment, and requiring more conspicuous and forceful labeling as to the ages for which certain toys may be appropriately used.

Rural injuries

Another area that deserves your keen attention is that of injuries to children living on farms and in rural areas. The rate of unintentional death for persons living in rural areas is approximately twice that for persons living in our largest cities. Farming is the second most hazardous occupation in

America, exceeded only by underground mining. It is the only hazardous occupation in which children make up a significant portion of the work force. The child labor laws that protect children from hazardous urban employment do not extend to protect children on farms. Farm machinery, such as tractors, wagons, combines and forklifts are not subject to federal safety standards. Nearly 300 children and adolescents die each year in farm injuries, and 23,500 suffer non-fatal injury.

Support is needed to institute model injury prevention programs tailored to the needs of rural children. There is much that needs to be done to upgrade emergency medical services for children who live in sparsely populated areas. The safety of farm equipment, and the appropriateness of its use by children, should be reexamined.

Guns and children

It would be remiss of the Academy not to address an area of childhood injury that too frequently goes unmentioned. I refer specifically to firearms. Each year there are several thousand young people who commit suicide with firearms. More than 1000 firearm murder victims each year are aged 19 and under; more than 150 victims are under 12. There are at least 400 unintentional firearm fatalities annually among children; 45 of those to children under five years of age.

You cannot be an advocate for child safety and ignore the issue of guns. When you realize that thousands of children carry guns to school each year; when you see graphically on television that children are being killed in school yards with semi-automatic weapons; when you learn that there has been an increase of 300 percent in the numbers of children treated in major urban medical centers for gunshot wounds; when you learn that there is an emerging pattern in this country of young children being shot in retaliation for the gang activities of their older siblings, you have to ask yourself whether our approach to this problem has been all wrong.

There is no evidence that public education alone -- in or out of the schools -- has any impact on gun violence. Our country is lamentably unique in the Western world in both gun violence and in the lack of limitations on gun ownership and use. We have twice the number of gun homicides and suicides as has Latin America, nearly five times that of Canada and Europe. A resident of Seattle is five times likelier to be murdered with a handgun than is a resident of Vancouver, just 140 miles to the north.

This tragedy is deepened when one considers that firearm deaths are among the most preventable of all childhood fatalities. Were guns not so readily available, many of

these deaths would be avoided. It is indefensible for us to overlook some 4500 deaths, and between 13,500 and 22,500 injuries each year, many to innocent children, simply because of strong -- and strongly objectionable -- political pressures. American families devastated by the loss of a child to firearm violence deserve better leadership than that.

Federal support for pediatric injury control

Last year the Congress moved dramatically to underpin more effectively the research and programmatic activities now under way at the Centers for Disease Control, which is overseeing the federal effort in injury control. While the fiscal 1988 appropriation in support of these initiatives had been a terribly deficient \$6.9 million, the outlay this year is up to roughly \$22 million. These funds will support programs in academic research centers to conduct research, training and demonstration projects in the areas of acute care, biomechanics, epidemiology, rehabilitation and prevention. Projects will address traffic injuries, intentional injuries, falls, poisonings, burns and drownings.

We hope to see continued growth of research, training and program funding for childhood injuries until it is more nearly commensurate with the magnitude of the problem. CDC is the appropriate coordinating agency, but we would urge the

Congress to recognize and support the significant contributions to injury prevention made by the National Highway Traffic Safety Administration, the Office of Maternal and Child Health (DHHS) and the National Institute of Child Health and Human Development.

Conclusion

Mr. Chairman, I have endeavored to highlight some of the major injury issues that confront our children. It seems to me and my colleagues in the Academy that there is a productive and promising role for Congress and the federal agencies to play on behalf of American children. We view injury prevention as eminently achievable if government assumes its share of the responsibility. Federal agencies -- the Consumer Product Safety Commission, the Centers for Disease Control, the National Highway Traffic Safety Administration -- need adequate resources to do their jobs. Pediatricians are prepared to support your leadership, and that of this committee, to ensure that neither one more death nor one more disabling injury befalls our children only because we lacked the political courage to provide them the protection to which they are entitled.

Senator HARKIN. Dr. Widome, thank you very much. I have some questions about that.

Dr. Susan Gallagher, Director of the Childhood Injury Prevention Resource Center at the Harvard School of Public Health.

Ms. GALLAGHER. Thank you. I appreciate the opportunity to testify today about the need for both State and Federal agencies to support a long-term effort to promote childhood injury prevention, and I stress prevention.

I am a research associate at the Harvard School of Public Health, but just to set the record straight, I am not a doctor.

For seven years, I also served as the director of the statewide childhood injury prevention program at the Massachusetts Department of Public Health. In the last decade, I have worked with many State and Federal agencies seeking to develop childhood injury prevention programs, and have had the pleasure of seeing increased interest and growth in this area.

I have also experienced firsthand the frustrations and hurdles of getting such programs started, given the many other priorities within State and Federal agencies. I am here today to provide you with information on the current status of injury prevention programs in State health agencies and to offer recommendations about what must be done.

In 1987, our Resource Center surveyed the 50 State and nine territorial health agencies to assess the extent of injury prevention programming nationwide. Among the 57 respondents, only 10 States had comprehensive injury prevention programs. An additional 12 States indicated that such development would be a future priority.

In most States, injury prevention activities were scattered across many divisions of the health department. Few had a designated full-time injury program manager. No State addressed the full spectrum of injuries. The injuries most often targeted for prevention were motor vehicle occupant injuries, poisonings, and home-based injuries, primarily because funding has been available to support such activities.

Programs seldom addressed intentionally-inflicted injuries. Nor have State health departments focused enough attention on children as a target group for prevention. Many sources of injury data were available to health departments, but with the exception of vital statistics, few were used effectively for program planning, epidemiologic studies of injury, priority-setting, community education, or reports to their legislature.

Despite the shocking statistics on the magnitude of the injury problem, most States devoted less than one-half of one percent of their health department's total budget to injury prevention, and only a fraction of these funds were earmarked for children and adolescents.

In fiscal year 1987, a total of about \$6 million was expended by the 49 States who were able to provide an estimate. Five States reported that no health department funds were spent for injury prevention. Ten States estimated budgets of under \$10,000. In all, 27 States expended less than \$100,000.

Only three States had a specific State appropriation for an injury program. The major sources of funding were the Federal block

grants. National Highway Traffic Safety Administration funds were cited by 13 States, and 10 States obtained funding from special competitive Federal grants.

Foremost among the barriers encountered in the development of injury prevention programs was a lack of funds. In addition, more than two-thirds of the State health agencies reported that there was no legislative mandate. There was not enough baseline data to support program development. There was little coordination within the health department and with other agencies. Trained staff were lacking, and the lack of public awareness was also reported to be a barrier. States expressed a need for outside assistance with funding, training, systems for tracking non-fatal injury, planning, and coordination.

On a more positive note, it appears that since the Surgeon General established injury prevention as a health priority, injury programs at the State level have expanded.

Based in part on these survey results, the Childhood Injury Prevention Resource Center has developed recommendations for both State and Federal agencies to expand programming to a level commensurate with the magnitude of the injury problem. My written testimony contains a summary of the specific recommendations.

On the Federal level, some progress has been made. The National Highway Traffic Safety Administration, the lead agency for motor vehicle occupant injuries, has long supported the use of child auto safety restraints through the governor's highway safety bureau in each State. Representatives from CPSC and CDC have also presented their testimony about their efforts today.

The Division of Maternal and Child Health has made a policy commitment to the development of childhood injury prevention programs in State maternal and child health agencies.

Since 1984, Maternal and Child Health has awarded 23 grants to State, local, and private agencies for injury and violence prevention projects covering a broad range of topics.

Although some of these grants are for \$50,000 or less, they enable States to hire a full-time injury coordinator and thus begin to build the capacity to address the problem of childhood injuries. As a result of this support, model programs have been developed at the State and local level.

While current efforts by the Federal Maternal and Child Health Office and other Federal agencies to encourage State health departments to establish childhood injury prevention programs are to be commended, the results of our survey demonstrate that significant State health agency resources still need to be directed toward this goal. Most States have not addressed injury systematically as a major public health problem and are only in the initial planning phases for comprehensive programming.

We know what to do, and public health agencies must play a leadership role in implementing some of these known prevention strategies. Nevertheless, substantial reductions in childhood injury deaths, disability, and their costs will not happen overnight. A long-term, sustained effort to address the problem of injury is required.

Progress is possible, but individuals practitioners cannot do it alone. The Federal Government must commit itself to such an

effort by supplying direction to States, with accompanying resources for both training and program development.

We need your support and leadership to stimulate the State and local public health community and State and Federal policymakers to give childhood injury prevention the attention it deserves.

I am requesting that you encourage your colleagues to investigate the status of childhood injury prevention within their districts. Further, I would urge you to foster the integration of child injury prevention into routine State activity and to establish child injury prevention as a goal of public policy in individual States and at the Federal level.

Thank you for the opportunity to share these findings.

[The prepared statement of Ms. Gallagher follows:]

INJURY PREVENTION PROGRAMS
IN STATE HEALTH DEPARTMENTS

Testimony before the
United States Senate
Committee on Labor and Human Resources
Subcommittee on Children, Family, Drugs, and Alcoholism

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Mr. Chairman and distinguished members of the Subcommittee, I appreciate the opportunity to testify today about the need for both state and federal agencies to support a long term effort to promote injury prevention (and I stress prevention) among programs dealing with children and youth.

I am Susan S. Gallagher, Research Associate at the Harvard University School of Public Health and Director the Childhood Injury Prevention Resource Center. For seven years I also served as Director of Child Injury Prevention Programs and Research at the Massachusetts Department of Public Health.

In the last decade, I have worked with many state and federal agencies seeking to develop childhood injury prevention programs and have had the pleasure of seeing increased interest and growth in this area. I have also experienced first hand the frustrations and hurdles of getting such programs started, given the many other programs within state and federal agencies.

There are still few knowledgeable advocates for the prevention of childhood injury in the public health and public policy arenas. Sadly, the public, decision-makers, and the media have not recognized that injury is the most important and costly health problem facing our children, and that this problem is largely preventable. The Subcommittee is to be commended for taking this first step by holding hearings on the subject and by recognizing that injuries are an issue of special concern to children and youth. I will leave it to others to describe the scope of childhood injury, its costs, and consequences.

I am here today to provide you with information on the current status of injury prevention programs in state health agencies, and to offer recommendations about what should be done in the near future.

Survey of State Health Departments

In June of 1987, the Childhood Injury Prevention Resource Center (CIPRC) surveyed the 50 U.S. state and nine territorial health agencies (including Washington, D.C.) to assess the extent and level of injury prevention programming nationwide. Information was received from all 50 states and seven of nine territories.

Among the 57 responding states and territories, only 10 had comprehensive injury prevention programs. An additional 12 states indicated that future development of a comprehensive injury prevention program was a priority. In most states, however, injury prevention activities were scattered across many divisions of the health department including Maternal and Child Health, Health Promotion/Education, Emergency Medical Services, Epidemiology, and Environmental Health. Only 22 states had an identified lead division to coordinate injury prevention

activities. Few had a designated full-time injury coordinator/program manager. Staff often devoted only a small portion of their time to injury prevention and were located throughout the health department.

No state addressed the entire spectrum of injuries. The injuries most often targeted for prevention were motor vehicle occupant injuries, poisonings and home-based injuries, primarily because these types have had funding opportunities available. Programs seldom included intentionally-inflicted or self-inflicted injuries. Nor have state health departments focused enough attention on children as a target group for prevention, despite the fact that children and adolescents represent the population most often and most seriously injured.

Many sources of injury data were available, but with the exception of vital statistics, few were used effectively for program planning, epidemiological studies of injury, priority setting, community education, or reports to the legislature. Only 22 states had or were in the process of developing a system to monitor fatal and nonfatal injuries. Seventy-one percent did feel that a high priority should be given to analyzing existing data in the future.

Despite the shocking statistics on the magnitude of the injury problem, most states devoted less than one half of one percent of their health department's total budget to injury prevention. And, only a fraction of these funds were devoted to child and adolescent injury prevention programs.

In fiscal year 1987, a total of \$6,245,400 was expended by the 49 states who were able to provide an estimate. Five states reported that no health department funds were spent for injury prevention; 10 states estimated budgets of \$10,000-50,000. Twenty-seven states expended \$100,000 or less. Only three states had programs supported by revenues from a specific state appropriation for an injury program. Most states had made no effort to obtain a budget line item for injury prevention; 11 state programs had tried, but failed. The major sources of funding were the Maternal and Child Health Block Grant (29 states) and the Preventive Health Block Grant (26 states). National Highway Traffic Safety Administration or Department of Transportation funds were cited by 13 states. Ten states obtained funding from special competitive federal grants and only six states utilized private funding sources.

Foremost among the barriers encountered in the development of injury prevention programs was a lack of funds. In addition, more than two-thirds of the state health agencies reported lack of a legislative mandate, lack of baseline data to support program development, lack of a coordination within the health department and with other agencies, lack of trained staff, and lack of public awareness to be barriers as well. States expressed a need for outside assistance with funding, training, systems for tracking nonfatal injury, planning, and coordination.

Plans for FY88 varied considerably depending upon each state's specific circumstances and current level of program development. Eighty-four percent planned to initiate, maintain, or even expand existing efforts. Statewide task forces, mostly dealing with the reduction of injuries to motor vehicle occupants, had been established in 24 states. Twenty states had no plans to establish a task force.

On a more positive note, it appears that since the Surgeon General established injury prevention as a health priority, injury programming at the state level has expanded. Since 1981, the number of states with injury prevention programs has tripled; there are higher staffing levels; a variety of health divisions are now involved; intentional injuries are being included in a few states; and there has been an increase in injury reporting systems.

Recommendations

Based, in part, on these survey results, the Childhood Injury Prevention Resource Center has developed recommendations for both state and federal agencies. These recommendations suggest the steps that must be taken in order to expand programming to a level commensurate with the magnitude of the injury problem.

Recommendations for State Health Departments

- * Designate a lead division for injury control in each state health department.
- * Assign a full-time injury coordinator and staff.
- * Organize a statewide injury control task force.
- * Develop a state plan for injury control.
- * Analyze and use existing injury data sources to target program activities.
- * Develop a comprehensive injury control program.
- * Address intentional injuries in programs.
- * Expand state funding for injury control.

Recommendations for Federal Agencies

- * Increase funding for injury programs and research.
- * Assist health department staff in obtaining support for injury prevention from state level decision-makers.
- * Provide training and technical assistance to state agency staff.
- * Assist states in developing injury monitoring systems and in data analysis.
- * Take a lead in increasing public and professional awareness of the injury problem.

Progress to Date

On the Federal level, some progress has been made. The National Highway Safety Traffic Safety Administration (NHTSA), the lead agency for motor vehicle occupant injuries, has long supported the use of child auto safety restraints through the Governor's Highway Safety Bureau in

each state. The recent appropriation for the Centers for Disease Control (CDC) injury program in the Health and Human Services budget should significantly expand the injury prevention activities of public health agencies, although this expansion is directed to all ages. The Division of Maternal and Child Health (DMCH) has made a policy commitment to the development of childhood injury prevention programs in state maternal and child health agencies. Since 1984, DMCH has awarded 23 grants to state, local, and private agencies for injury and violence prevention projects covering a broad range of topics. Although some of these grants are for \$50,000 or less, they enable states to hire a full-time injury coordinator and thus, build the capacity to begin to address the problem of childhood injuries. As a result of this DMCH support, model programs have been developed at the state and local level and new tools and products have been made available to program personnel (examples: instructional kits for a variety of health and child care professionals to integrate injury prevention into their ongoing services, a training module for day care providers to ensure safe environments, a safety supply handbook, a computerized monitoring system for injuries treated at the emergency room, a playground hazard checklist, multilingual materials for parents who are recent immigrants, a directory of injury prevention professionals for networking, curricula targeted at students identified at high risk for drinking and driving, a series of graphs, charts, and slides for professionals to describe the injury problem in their region).

More recently, the DMCH collaborated with the CDC, NHTSA, and Education Development Center to appoint a panel of 30 experts to develop and write a book for state and local public health officials who wish to address the injury problem. Injury Prevention: Meeting the Challenge will be available in May 1989 as a free-standing supplement to the American Journal of Preventive Medicine. It will provide guidance on the process of developing, implementing, and evaluating an injury prevention program and will review the knowledge base on existing injury prevention strategies.

While current efforts by the federal DMCH to encourage state health departments to establish childhood injury prevention programs are to be commended, the results of our survey demonstrate that significant state health agency resources still need to be directed toward this goal. Despite the recent increase in activity, most states have not addressed injury systematically as a major public health problem and are only in the initial planning phases for comprehensive programming. Given the competition for scarce resources at the state and local levels, it is difficult for a new initiative to gain acceptance and become a funding priority. From a policy perspective, it appears that support from traditional sources is important if programs are to be developed, maintained, and expanded.

The Future

We would do well to follow Surgeon General Koop's lead and place childhood injury prevention on the list of priorities at the federal, state, and local levels. It is time for public health agencies to play a leadership role in implementing what we currently know about how to prevent childhood injuries. For example:

- * The correct and consistent use of child auto passenger restraints would have saved an estimated 282 lives of children under five years of age in 1984.
- * The use of adequate helmets by child bicyclists could have prevented an estimated 251 deaths from severe head injuries in children 0-14 years of age in 1987.
- * The use of adequately installed and operational smoke detectors in homes could have saved the lives of nearly 1,000 children 0-14 years of age in 1987.
- * The use of adequate fencing with self-latching gates around swimming pools could have saved an estimated 127 lives of children under five years of age in 1987.

Nevertheless, substantial reductions in childhood injury deaths, disability, and their attributable costs will not happen overnight. A long-term sustained effort to address the problem of injury is required. Progress is possible, but individual practitioners cannot do it alone. The federal government must commit itself to such an effort by supplying direction to states with accompanying resources for training and program development.

In order to sustain the progress of the last decade, a multidisciplinary and coordinated effort is essential in every state. We need your support and leadership to stimulate the state and local public health community and state and federal policy makers to give childhood injury prevention the attention it deserves and to elevate it to priority status. I am requesting that you encourage your colleagues in the Senate and in the Congress to investigate the status of childhood injury prevention within their districts. Further, I would urge you to foster the integration of child injury prevention into routine state and federal agency activity and to establish child injury prevention as a goal of public policy in individual states and at the national level.

Thank you for the opportunity to share these findings with you today.

Senator HARKIN. Thank you, Ms. Gallagher. I appreciate it very much. Thank you all for your testimony.

I guess the only thing I want to focus on before we adjourn here today is Dr. Widome's testimony and some of the parts you showed there on the kids' things. As I said, as a parent of two young children—well, let us see, my youngest is seven; they are not so young any longer, I guess.

But I am interested, Ms. Graham, when you said in your testimony that the Consumer Product Safety Commission has had a regulation since 1980 that bans toys intended for use by children under three that have or contain small parts, and that is that little device right there. If it fits in there, you ban them?

Ms. GRAHAM. We ban the parts, yes, we do.

Senator HARKIN. Well, he just showed me some toys right there that—

Ms. GRAHAM. Well, there are instances, Senator, when they do get by, and I think one thing that is positive about that Operation Toyland that we are doing with the Customs Service is we are getting more of them. But we are trying to ban them all and some do get through the cracks. There is no doubt about it.

Senator HARKIN. What do you do when you find someone like that?

Ms. GRAHAM. Well, we go to industry and we try to get them all off the market through a recall or another corrective action plan whenever we can. And with the Customs Service, the good news is that we stop them at the docks and they never actually get into the marketplace.

Senator HARKIN. Obviously, they are still being made.

Ms. GRAHAM. They are, and we are trying to make sure that we get them all off the market, but we are not always successful.

Senator HARKIN. Tell me about the Commission. How long have you been on the Commission, Ms. Graham?

Ms. GRAHAM. For three years.

Senator HARKIN. Three years. How many members of the Commission are there?

Ms. GRAHAM. At the moment, there are two.

Senator HARKIN. How many are allowed under law, or required?

Ms. GRAHAM. There are three appropriated; there are five authorized.

Senator HARKIN. There are five authorized members?

Ms. GRAHAM. Yes.

Senator HARKIN. How many were on the Commission when you came on three years ago?

Ms. GRAHAM. Five.

Senator HARKIN. Five. How many are on now?

Ms. GRAHAM. Two.

Senator HARKIN. Two. You need three for a quorum?

Ms. GRAHAM. Yes, we do.

Senator HARKIN. You can't even meet.

Ms. GRAHAM. That is correct.

Senator HARKIN. And you are telling me you can go after these people and you can't even meet?

Ms. GRAHAM. There are activities that we can do without a quorum and one of those activities is to have our compliance unit monitor and try to keep unsafe toys off the market, yes.

Senator HARKIN. What is your budget this year?

Ms. GRAHAM. \$34.5 million.

Senator HARKIN. Has that gone up in recent years?

Ms. GRAHAM. No, it hasn't.

Senator HARKIN. Has it gone down?

Ms. GRAHAM. We have been operating under a continuing resolution, but—

Senator HARKIN. What did President Reagan request for this year in the budget?

Ms. GRAHAM. 33.5.

Senator HARKIN. So, a cut?

Ms. GRAHAM. Yes.

Senator HARKIN. Do you think it ought to be cut?

Ms. GRAHAM. I appealed that and I think 36.5 would be a better mark for us. I also understand that the subcommittee chairman and the ranking member of our authorizing committee have written OMB and expressed concern, and I share that concern about the budget mark.

Senator HARKIN. Well, it is this Senator's viewpoint that over the last several years under the directorship of Mr. Scanlon that the Consumer Product Safety Commission has been, if I can be gentle about it, less than diligent.

Ms. GRAHAM. I agree with you.

Senator HARKIN. Well, thank you; I appreciate that. That is very candid of you. I am hopeful that under the new administration we will get three appointees in there right away; that we will have people in there that share with you the interest and the commitment to use the Commission to do what Congress intended for it to do and what it should be doing.

I just think that what has happened over the last few years with the Consumer Product Safety Commission is just—again, I just shudder to think how many kids in the last few years have been killed, maimed, injured by toys like that simply because the administration and Mr. Scanlon did not want the Consumer Product Safety Commission to be vigilant in carrying out their duties and their activities.

I think it is a shame and a blot on this country, and on Mr. Scanlon and the previous administration, what they did. And I hope and trust that President Bush will turn this Commission around and make it vigilant once again in protecting the safety and health of our kids in this country. I hope we will get the budget up, too.

How about your personnel?

Ms. GRAHAM. The personnel has been cut by approximately one-third since 1981. We are at 519 right now.

Senator HARKIN. And at a time when there are more toys than ever coming on the market.

Ms. GRAHAM. I think that the Commission has an extremely important mandate and that there is a lot that we can and should be doing.

Senator HARKIN. I think so, too. As I said, I know of one instance that sticks clearly in my mind. Our youngest daughter was

born in 1981. I remember a toy that when you looked at it, it was okay, but it had one little part that was supposedly fastened in. But it is like, you know, plastic things—you know how they fuse them together, but the part wasn't fused in. And, heck, it didn't take much at all; a couple of hits on the side of crib or something and out it came. It would have fit in that glass easily.

I was just shocked by it and I thought, you know, these are things that ought to be looked at, because just from the outward appearance it was okay, but any small amount of testing would have shown that that little part would come out under just the slightest banging or something like that. That is what I thought the Commission was for.

Well, again, I don't mean to repeat myself, but I sure hope that we see some good nominees coming up.

Any other last things that any of you have that you would want to bring before the subcommittee before I adjourn?

[No response.]

Senator HARKIN. Well, I know that Senator Dodd is going to push ahead with his legislation and I know we will be looking at this. But, again, I am not so certain how much new legislation is needed. What we need is a President of the United States that will get this Commission fully staffed, get people on there like you, Ms. Graham, who are committed and dedicated to using the Commission for the health and safety of our kids, come to Congress, ask for the appropriate funds. We will give them the appropriate funds; get the personnel up and let us get this thing back on the road again.

I will recognize you, yes, Ms. Adams.

Ms. ADAMS. I would like to share with you the budget that is allowed for agricultural health and safety.

Senator HARKIN. Yes.

Ms. ADAMS. It is \$19,000 per year, per State, which average out to about 30 cents per farm family.

Senator HARKIN. Where is that through, the CDC? Where does that come through?

Ms. ADAMS. I am not sure. I think it comes down through USDA, through the Extension Service.

Senator HARKIN. USDA?

Ms. ADAMS. Yes.

Senator HARKIN. Well, I will look at that. What is that called? What is this, \$19,000 a year per State for what, education?

Ms. ADAMS. This is for the extension farm safety specialist and the education.

Senator HARKIN. In the Extension Service?

Ms. ADAMS. Yes.

Senator HARKIN. I will look at that. Thank you.

One last thing, though, before you leave. I did make a note here about drunk driving, Dr. Widome, and you talked about teenagers driving. Again, having one getting into that area, I am getting very concerned about that. You raised an interesting point.

Should we raise the driver's license age? It is now, what, 16 in most States? Why shouldn't it be 18?

Dr. WIDOME. It seems that the highest-risk driving is with the youngest drivers. We see more fatal crash involvement in 16—

Senator HARKIN. Let me ask you this. I just thought of something else. Driver's licenses have restrictions. Well, maybe you could let a young person have a driver's license at age 16, but restrict it only to daytime driving and not allow kids to drive at night. Their license is not good after sundown. Would that work?

Dr. WIDOME. I think that would begin to make a difference. I think we have the opportunity to give young people a chance to demonstrate their driving capabilities in lower-risk driving situations before we allow them to drive in the high-risk situations.

So you could get a license for daytime driving or daytime and early evening driving when you are 16 or 17, and then when you get to be 17 or 18, if you have not had any citations and your driving record has been good, it could be extended to a full license.

That way, we give young people an opportunity to demonstrate, to gain experience, and we don't see these thousands of 16-year-olds that end up fatally injured in crashes, oftentimes late at night, sometimes with the involvement of alcohol.

Senator HARKIN. I read in the paper the other day that one superintendent of schools in one State—I can't remember what State it was—is pushing for the legislature to pass a bill that would tie driver's licenses in with staying in school.

If you drop out of school, you can't get a license until you are 18 or 19. But if you stay in school, then you can get a license earlier as long as you stay in school. Not a bad idea, and you couple that with maybe a restriction that they can't drive at night and you might be on to something.

I would be interested in knowing if any States are looking at this. Again, this is not a Federal role. States issue driver's licenses, not the Federal Government. I would like to know if any States are looking at this. Do you know of any?

Dr. WIDOME. I do not know of any. I would like to make just one further comment, if I may. I spent some time here showing you toys and products that are dangerous and available, and so forth.

I think that this panel should be aware that on the issue of all-terrain vehicles, small parts, lawn darts, and so forth, Commissioner Graham has provided leadership in the area of childhood safety. She needs more money for her Commission to do her job, but, in fact, she over the years has been a vocal, outspoken advocate for the safety of children and I would like your committee to recognize that.

Senator HARKIN. We do recognize that, and I was hoping that I was singling her out as being a committed person on that Commission.

Ms. GRAHAM. Thank you very much.

Senator HARKIN. Again, these all-terrain vehicles—we just saw a video that was just awful. I don't know why they can't put roll bars on them. Why don't they license those? Why don't they say you can't drive those until you are a certain age and you get a license for them?

Dr. WIDOME. There are three strategies that we usually talk about. We talk about persuading people, we talk about passing laws, and we talk about designing products. Each of those is more likely to be effective than the one before.

Persuasion is very difficult; changing people's behavior is very difficult. Passing laws such as seatbelt laws and child restraint legislation is more effective, but not without its problems.

Perhaps the most effective way to address some of these issues is through safer product design, because then people are automatically protected. I think roll bars are a good example. I think performance standards for stability of vehicles are a good example. I think engine size and speed are other examples.

This is obviously a very defective product, and there are others like that out there. And I think the way to attack this is certainly through public education. There has been a lot of emphasis on public education. I think the work of Dr. Eichelberger and his group has been exemplary.

But I also think there is a role for taking a look at the environment and taking a look at the products. Most of these injuries are the result really of our modern technology, and I think we have to look at product design so that people don't have to take an action every time or change their behavior every time, so the vehicle has some built-in protection.

This is the most extreme example, the all-terrain vehicle. There are other examples, but I couldn't agree more that we need to look at product design; that these vehicles shouldn't be out there under any circumstances.

Senator HARKIN. Thank you all very much. Mr. Chairman, thank you.

Senator DODD [presiding]. Thank you, and let me thank my colleague from Iowa for spending so much time.

Senator HARKIN. Very interesting. I am with you on this one.

Senator DODD. I apologize to him for being a little longer in getting over, and I know you have covered an awful lot of the ground and I will pick it up from Tom or the staff here, some of your comments regarding staffing.

I wanted to tell you, Commissioner—and I am not saying this because you are here—you have the reputation of being one individual who cares deeply about these issues, and I want you to know that the chairman of this subcommittee deeply appreciates your efforts. I mean that very sincerely, and it has been helpful.

I wonder if you might just comment—Tom, I don't know if you are aware, but we are going to introduce today a toy labeling bill, not that it is written in concrete because we would like to get some suggestions on what makes the most sense in that area. Sam Gejdenson has introduced it in the House. Jim Florio was here a little earlier to talk about it.

And I wonder if you might just comment on that legislation, Commissioner, what your thoughts on it are, where you think we might make some corrections or some changes in it, if any at all.

Ms. GRAHAM. Mr. Chairman, I am very supportive of the objective, and I think it is very important to inform the parents and educate the parents. That is one of the main ways to solve this problem.

I would ask—if you would, let me review the bill and submit a written answer as to the specifics. But, overall, I think it is a positive move.

Senator DODD. I appreciate your saying that. And, again, I don't know if any of the rest of you have had a chance to look at the bill, but we would appreciate that as well, that you all take a look at it.

I can't resist. You heard me, for those of you who were here, asking the Surgeon General about parental leave. These matters are all interrelated—I mean, the child care issues, the parental leave legislation, and this.

I mean, how many times do you pick up the paper and find where some unsupervised child ends up getting into situations? And it is the latchkey child home alone that we have heard about. The other day, there was a headline story here in Washington that an eight-year-old boy shoots two-year-old sister unattended at 2:30 in the afternoon.

The fires—one out of every six that starts in Trenton, New Jersey, is an unattended child at home that starts it.

There is no magic to this, but there seems to be some relationship between parents learning about how to cope with new children in the bonding period, or a newly adopted child, and having proper supervision for a child with single parents working, worrying about where their kids are, who is watching them.

So there is a relationship here, and no one has cornered the market on exactly how you write this stuff to minimize the possibility. But I couldn't resist with you, Dr. Widome, and you, Dr. Eichelberger, given your background and experience, if you would not comment.

I am not going to get you involved in signing on to H.R. or S.-this-that. I mean, if you would give us your general comments on child care legislation and parental leave legislation, whether or not it can play a role in the subject matter we are talking about here, and to what extent and how important is it.

Does either one of you want to go first?

Dr. WIDOME. Well, Senator, I think your reputation for your concern for children is well known to pediatricians and to the American Academy of Pediatrics, and I think you are quite right.

I think that children vary greatly in their tendency or their propensity to be injured. We are learning now that the same may be true for diseases. It is extremely important for children, particularly young children in the first year of life, to have a relationship with a parent, with an adult, that is ongoing, someone who learns the characteristics and the temperament of that particular child, one who can supervise the environment.

So I would say that the supervision of an adult is extremely important. Ideally, the parent, and a parent who knows that child, can be extremely important in reducing the risk of injury to children.

Senator DODD. I think you put it very concisely. There is the education, the legislation, and the design. But, obviously, accidents and injuries do occur. In terms of a parental leave policy with regard to parents who can be with hospitalized children, what has been your experience in terms of the recovery rate of children who have that kind of involvement?

Dr. WIDOME. Twenty years ago, it was the routine that when a child was admitted to the hospital, the parents were sent home and told to come back in a week. And I think that we have seen tre-

mendous benefit from keeping parent and child together whenever possible.

This is true in the emergency room, as I am sure Dr. Eichelberger can describe. It is also true in the hospital and even going into the operating room on some occasions. The emotional support that a parent can provide to a child in the hospital in a completely strange environment, I think, is absolutely accepted now as a very important factor in the child's psychological recovery, as well as his physical recovery from whatever injury he may have.

Senator DODD. Doctor?

Dr. EICHELBERGER. Senator Dodd, I have the opportunity to treat many of these children on a daily basis, and your point is well taken because many of these children come to our trauma receiving area at the Children's Hospital National Medical Center, which is right here at your back door, where the parents don't even know the child has been injured.

And we spend three, four, six hours, at times, looking for the parents because these children are not supervised or are in environments that don't have the safety precautions that there ought to be.

I think that our responsibility is to really try to communicate to people that this is an injured family; it is not an injured child. And when a family is injured—and I am not sure that the family definition in our Nation today is as clear as it should be, but the family unit becomes a very precious and important resource that we have as treatment experts because that is what we do. We have to take care of these children once they are injured.

One of the things that happens at the Children's Hospital in Washington is that we provide facilities for parents to move in with the child, and that is unique. Many hospitals around the country still don't have adequate facilities to provide to families.

However, it does take the family out of the workforce, no question about it, especially if you have a major head injury where the child is on a respirator, can't think, can't talk. Many children, believe it or not, can still hear and still have sensation.

So one of the things that we use as a rehabilitative technique is to use the family and the parent or the mother or father, specifically, touch and talk to the child because we do think that makes a difference in the long term.

But I think the policies have to be analyzed from a multi-faceted level, and I don't think it is a very simple problem just to say that having the parent present is going to change the incidence of injuries. We have to look at it from the standpoint of what the community can provide for those different families because I am sure it is different in Iowa than it is in an urban setting like Washington, D.C.

Senator DODD. Well, I understand that, but you are not suggesting to me that in the absence of parental or adult supervision that the statistics would remain the same?

Dr. EICHELBERGER. No, sir, I am not suggesting that. I am saying that if the parent were directly involved—and this is a problem because most of our injury control techniques focus on those areas that you mentioned having to do with the types of toys that we provide to kids.

But I think it goes beyond this and Commissioner Graham's responsibility to provide safe toys. It is our responsibility as individuals and individual parents to provide proper supervision and environments for these kids.

Senator DODD. Well, again, thanks, all of you, for being here. And I gather that, again, most of these questions were addressed. To the extent any of you feel comfortable and have the time to comment about the toy labeling bill, I would certainly appreciate hearing from you.

Again, our intention here is to try and do something that makes some sense, and it really only gets at one aspect of this. I couldn't agree more; I mean, I think the design area is really the best defense in many ways. And, obviously, supervision, and so forth, help dramatically.

Dr. Koop had asked that supplementary remarks be included in the record and, without objection, that will be done as well.

[NOTE. Statements from CDC and NICHD are inserted following p. 9.]

Senator DODD. And there are some questions Senator Hatch had for Dr. Koop, and I will make that as a general—any questions that any Senator on the subcommittee has for any of our witnesses, I would ask our witnesses if they could respond at the earliest possible convenience.

[Responses of Dr. Koop to questions submitted by Senator Hatch and additional material supplied for the record follows:]

Senator Hatch

Questions for Dr. Koop

Question 1:

Since we are talking about protecting our children, I would like to digress for a second and ask you about children and tobacco. Each year in this country, approximately 400,000 tobacco users die prematurely because of their addiction. In addition, another 1.5 million Americans are able to break their habit. This means that the tobacco industry must recruit approximately 2 million new smokers each year just to stay even.

Unfortunately, they continued to be successful in recruiting new users and the new users they are recruiting are our children. As I understand it, approximately 90 percent of the smokers in this country start before the age of 20 and approximately 60 percent start before the age of 15. That means that if current trends continue, more than 1 million children under the age of 15 will become addicted to cigarettes this year and literally hundreds of thousands of them will eventually die prematurely because of their addiction.

This situation with smokeless tobacco is even worse. Studies have shown that 88 percent of smokeless tobacco users started before the age of 15 and 55 percent started before the age of 13. And in one study, 21 percent of Arkansas kindergarten children have tried smokeless tobacco products.

Given the aggressive efforts of the tobacco pushers, to addict our children, what additional steps would you recommend to help end this national disgrace?

Answer:

Because the overwhelming majority of tobacco users begin use before adulthood, prevention efforts must focus on children. Individuals who start smoking early have more difficulty quitting, are more likely to become heavy smokers, and are at higher risk for developing smoking-related diseases. Surveys of adolescents indicate that many of those who start to smoke do not understand the nature of tobacco addiction and are unaware of or underestimate important health consequences of smoking.

In the interest of protecting children and adolescents, and preventing the well-documented, early initiation of tobacco use, it is essential to establish appropriate public health policies for the advertising, sale and distribution of tobacco products as they relate to children. Given both the addictive nature of tobacco use and its health consequences, it is critically important to protect children and adolescents from using tobacco as they are less capable of making a mature and informed choice.

In addition, tobacco-free schools and expanded school-based and other health education efforts to reach children and adolescents could have a beneficial effect on delaying the initiation of tobacco use, which would in turn increase the likelihood of permanent avoidance of tobacco. As evidence, a major nationwide evaluation conducted by CDC showed that comprehensive health education in schools has resulted in a 37 percent reduction in the number of seventh-grade students who begin to smoke.

Strict observance of prohibitions against the sale of tobacco to children might be a powerful means for reducing the initiation of smoking by children. Purchases from retailers or vending machines appear to represent the main source of cigarettes for children. There are fewer restrictions on child tobacco use now than at any time in many decades, despite what has been learned since 1964 about the dangers of tobacco use, its addictive nature, and the early age of its initiation. Laws should be in place and enforced requiring at least 18 years as the minimum age for purchase of tobacco products. Selling or otherwise providing tobacco products to children and adolescents where age verification is difficult or impossible, such as through vending machines, should not be allowed.

Other policies that could be considered include the banning of promotional distribution of tobacco products to children. Children obtain cigarettes and other tobacco products as free samples distributed for promotional purposes. Although the tobacco industry's voluntary codes prohibit the distribution of cigarette samples to individuals under 21 years of age and the distribution of smokeless tobacco to persons under 18, there is evidence of widespread violation of these codes.

Raising the cost of tobacco products and limiting children's exposure to tobacco advertising which glamorizes tobacco use could also have a significant effect on reducing uptake in our Nation's youth.

Question 2:

There has been a lot of discussion over the last several years about so-called gateway drugs. Is there any evidence that children who use tobacco products are more likely to abuse alcohol and other drugs? And if you can stop children from smoking, is there any evidence that will reduce the incidence of the abuse of other substances?

Answer:

Tobacco is considered by many experts in the field of drug addiction to be a gateway drug. This issue was examined in the 1988 Surgeon General's Report, The Health Consequences of Smoking: Nicotine Addiction. Based on major epidemiologic surveys such as the National Institute on Drug Abuse's National Household Survey, two findings consistently emerge: persons who use dependence-producing drugs are usually cigarette smokers, and cigarette smoking almost always precedes and may be predictive of illicit drug use. It appears that children and adolescents who do not make the transition from experimentation with cigarettes to daily cigarette use may be less likely to use other drugs than those youngsters who do go on to become regular cigarette smokers. Based on data from the National Household Survey, we know that among 12-to-17 year-olds, almost three-fourths of current smokers were current alcohol users compared with less than one-fourth of the youths who were not current smokers. The prevention of the uptake of cigarette use by children and adolescents would appear to have a beneficial effect on preventing alcohol abuse and illicit drug use.

Questions for Dr. Koop - Continued

3

Question 3:

Dr. Koop, CDC was to have completed a study on accidents by January 1 of this year. I have not yet seen that study. Could you please check on it and let me know when it will be completed?

Answer:

The Childhood Injury Report has been drafted by the Centers for Disease Control and is currently being reviewed by the Public Health Service (PHS). We anticipate receiving comments from the PHS by June 1. A final report will then be prepared expeditiously and forwarded to the Department.



AMERICAN MEDICAL ASSOCIATION

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DIVISION OF LEGISLATIVE ACTIVITIES

ROSS N. RUBIN, J.D.
Director

DEPARTMENT OF FEDERAL LEGISLATION

BRUCE D. BLEHART, J.D.
Director

DAVID L. HEIDORN, J.D.
(645-4767)

February 21, 1989

The Honorable Christopher J. Dodd
Chairman
Subcommittee on Children, Family, Drugs and Alcohol
Committee on Labor and Human Resources
United States Senate
Russell Senate Office Building #444
Washington, DC 20510

RE: Submission for the Record of the
February 9, 1989, Subcommittee
Hearing on Childhood Accidents
and Injuries.

Dear Chairman Dodd:

In our letter of commendation dated February 17, 1989, the American Medical Association made reference to "accompanying AMA reports on injury risks to ... children." However, due to a composition scheduling error, these documents did not accompany our letter.

Please find, enclosed, the aforementioned "enclosures" along with a copy of our original letter. We deeply regret any inconvenience.

Sincerely,

David L. Heidorn

3309x/3
DLH/dwc

AA. CORPORAL PUNISHMENT IN SCHOOLS
(RESOLUTION 87, A-83)
(Reference Committee H, page 357)

HOUSE ACTION: ADOPTED IN LIEU OF RESOLUTION 87 (A-83), the Board of Trustees commended for a superb report and the report to be given widespread distribution

Resolution 87 (A-83) calls for the American Medical Association to support the abolition of corporal punishment in schools, inform school boards of its action, and work with the American Academy of Pediatrics to implement this policy. The resolution was referred to the Board of Trustees.

DEFINITION

States, communities and school districts define corporal punishment in a variety of ways. For the purposes of this report, corporal punishment is the intentional infliction of pain or discomfort and/or use

June 1985

Board of Trustees - AA

of physical force upon a student as punishment for an offense or behavior. This definition does not include the use of physical force (1) in self-defense, (2) to disarm a student, (3) to protect other individuals, or (4) to protect property.

BACKGROUND

Corporal punishment has been used as a form of discipline in American schools for more than 200 years. During Colonial days, it was an accepted and often preferred method of handling disciplinary problems in school, and teachers were expected to strike students regularly for any and all infractions of the rules. In addition, various religions of the time advanced the practice of regular corporal punishment both at home and in school in the belief that one could "beat the devil" out of recalcitrant children.

This practice was not seriously questioned until the late 19th century. In the 1870s, public outrage over several much-publicized child abuse cases resulted in the formation of organizations to combat child abuse and to protect children. Among the child welfare issues that received a great deal of publicity over the next fifty years was opposition to the use of corporal punishment as a disciplinary method by the schools. The turn-of-the-century literature indicates that many educators disapproved of corporal punishment, and some thought that it was rarely used. No longer seen as necessary to maintain order in the school, corporal punishment was abandoned in favor of more humane forms of discipline. By the mid-1920s, the American public's interest in progressive social issues - including child welfare - had waned, and the issue of corporal punishment disappeared from the public arena for the next four decades.

The second major child welfare movement began in the 1960s and continues today. Issues regarding the health, safety, and rights of children have once again gained national attention. Child welfare advocates have condemned corporal punishment as child abuse and have fought to deprive this form of discipline of legal status, charging that it is the only officially approved form of physical abuse that remains in this country. (Corporal punishment in the military and in prisons, though once condoned, has been outlawed.)

Organizations that have passed resolutions opposing corporal punishment in the schools include: the National Education Association (1972), American Psychological Association (1975), American Public Health Association (1979), American Civil Liberties Union, National Committee for Prevention of Child Abuse (1983), American Academy of Pediatrics (1983), Society of Adolescent Medicine (1980), Association for Humanistic Education, National Association for the Advancement of Colored People, and two state medical associations (Ohio and California).

CURRENT USE OF CORPORAL PUNISHMENT

The extent to which corporal punishment is used in U. S. schools is difficult to determine because the reporting of individual incidents is rare. However, the few incidence studies that have been conducted indicate that it is being used regularly throughout the country.

Results of the 1980 Elementary and Secondary Schools Survey of the Department of Education Office for Civil Rights revealed that corporal punishment was administered more than one million times in more than 77,000 schools during the 1979-80 school year. A 1984 report on a survey of 324 principals in 18 states indicated its widespread use with students at every grade level in virtually all regions of the country.

These studies indicated a wide range of use from "none" through "frequent." Variations were due to factors such as local beliefs and customs, size of school and administrative style. Differences in state and local laws and regulations governing the use of corporal punishment were a major factor in its range of use.

Currently, four states have outlawed corporal punishment: New Jersey (1867), Massachusetts (1972), Maine (1976) and Vermont (1984). Rhode Island and New Hampshire have banned the practice by school

board regulations, and Hawaii has had a moratorium on this form of discipline since 1973. All other states either permit corporal punishment by statute or do not prohibit its use. In addition to state laws, state and local school boards have passed regulations prohibiting corporal punishment within their districts. Cities such as New York, Chicago, Washington, D. C., San Francisco and New Orleans, among others, also have banned the practice.

Despite laws and regulations prohibiting its use, the National Education Association Task Force on Corporal Punishment received testimony that these restrictions were being ignored in many cases and that corporal punishment was being administered even in schools that had officially banned the practice.

The type of corporal punishment administered varies among states and schools. Although generally believed to be restricted to spanking with the hand or a paddle, other forms reported include striking students with sticks, ropes, fists or belts; choking; throwing them against walls or desks; sticking them with pins; dragging them by the hair or an arm; tying them to chairs; forcing them to do strenuous exercise; forcing them to remain in uncomfortable positions, such as standing on their toes; and confining them in closets, school vaults, storerooms or boxes.

Although some state laws specify individuals who may administer corporal punishment, others do not. In most states, principals and teachers are identified. In a few states, any school employee may administer corporal punishment.

MEDICAL CONSEQUENCES

The majority of corporal punishment incidents result in minor injuries, such as soreness and redness of the skin. Although injuries requiring medical attention are rare, the use of corporal punishment has the potential of causing injuries such as hematomas, ruptured blood vessels, massive fat emboli, sciatic nerve damage, muscle damage and brain hemorrhage.

The psychological effects of corporal punishment can be as harmful as the physical effects, if not more so. Forms of noncorporal punishment, such as ridicule, name-calling and destructive criticism, can result in many of the same psychological effects:

- loss of self-esteem
- increased anxiety and fear
- impairment of ego functioning
- feelings of helplessness and humiliation
- stifled relationships with others
- aggression and destruction both at home and at school
- self-destructive behavior, often culminating in suicidal gestures
- limited attention span and hyperactivity in school, leading to deficient academic performance

EDUCATIONAL AND SOCIAL CONSEQUENCES

Although discipline is a major consideration in the administration of a school, the primary objective of the educational system is to prepare students to become healthy, productive adults. Research concerning the effects of corporal punishment on the learning process has indicated that its use is counterproductive in terms of this objective.

June 1985

Board of Trustees - A.A.

The National Education Association, in its 1972 Report of the Task Force on Corporal Punishment, concluded that this form of discipline:

- is ineffective in maintaining order
- may increase disruptive behavior
- hinders learning
- is not suitable for any child, regardless of socioeconomic status
- develops aggressive hostility
- teaches that might is right

Other conclusions were that:

- the availability of physical punishment discourages teachers from seeking more effective means of discipline
- the use of physical punishment inclines everyone in the school community to regard students as less than human and the schools as dehumanizing

ALTERNATIVES TO CORPORAL PUNISHMENT

Recent polls of teachers, parents and the general public have identified discipline as a major problem in education today. Proponents of the use of corporal punishment argue that teachers must be free to use whatever means are necessary to maintain order. Opponents argue that a well-planned disciplinary program features enough alternatives from which to choose. Such a program involves more than punishment. Discipline is a state of control gained by enforcing obedience and order. The tools used in a disciplinary system are rewards and punishments, including noncorporal (e. g., detention) as well as corporal.

Alternatives to corporal punishment are positive disciplinary programs and noncorporal punishment. A positive disciplinary program includes activities that help teachers and administrators assume control and establish order with the cooperation of the students. If the program is successful, disciplinary problems are prevented because students receive rewards for controlling themselves. Examples of positive disciplinary activities are: modeling good behavior, reinforcing positive behavior, improving communication between students and educators, establishing policies that demonstrate mutual respect between students and educators, and inviting student input when developing disciplinary policies.

Noncorporal punishment is administered when positive discipline fails and infractions of the rules occur. Types of nonphysical punishment are: detention, chores, expulsion, behavior modification, discussion with students and parents, withdrawal of privileges, counseling, verbal reprimands, social isolation and empathy training.

With the use of these alternatives, many schools have abolished corporal punishment as a means of maintaining order. Research comparing schools that use corporal punishment with those that do not prove that it is not needed to foster a climate suitable for learning.

CONCLUSIONS AND RECOMMENDATIONS

The infliction of pain or discomfort, however minor, is not a desirable method of communicating with children. It is especially undesirable given the variety of alternatives available to educators. In addition, the official sanction of corporal punishment imparts approval to actions that have the potential for serious injury. The Board believes that the use of corporal punishment by educational and other institutional

personnel is in opposition to the AMA's declared intent to attack the widespread problem of child abuse and, therefore, opposes its use in our nation's schools.

The Board of Trustees recommends that the AMA:

- support the abolition of corporal punishment in schools
- encourage universities that train teachers to emphasize alternative forms of discipline during their training
- encourage physicians to work toward the abolition of corporal punishment in their communities
- encourage state medical societies to support legislation prohibiting corporal punishment in their states
- encourage parents and school personnel in those districts that have abolished corporal punishment to ensure the implementation of existing policies
- assist physicians and medical societies by providing information for use in the abolition of corporal punishment
- work with the American Academy of Pediatrics to implement these recommendations

Active research is underway on the consequences of corporal punishment administered at an early age. An updated report on such research findings will be prepared for the 1986 Annual Meeting of the House of Delegates.

The Board of Trustees recommends that this report be adopted in lieu of Resolution 87 (A-83).

(References pertaining to Report AA of the Board of Trustees are available from the AMA Department of Human Behavior.)

December 1987

Scientific Affairs - A

REPORTS OF COUNCIL ON SCIENTIFIC AFFAIRS

The following reports, A-E, were presented by George M. Bohigian, M. D., Chairman:

A. FIREARMS AS A PUBLIC HEALTH PROBLEM IN THE
UNITED STATES: INJURIES AND DEATHS
(Reference Committee E, page 360)

HOUSE ACTION: ADOPTED AS FOLLOWS:

Substitute Resolution 46, adopted at the 1986 Interim Meeting, called for the AMA to review the effectiveness of programs designed to reduce deaths and injuries caused by handguns and to support and promote those educational programs sponsored by nationally funded research organizations that have been demonstrably successful.

INTRODUCTION

"Few health issues in our recent history have engendered as complex and lasting a controversy as that surrounding the prevention of firearm deaths and injuries. Through individual and collective action, health professionals can become a potent force to control this epidemic of modern times." (The Epidemiology of Firearm Deaths Among Residents of California, 1987) There is unquestionably a need to treat this public health matter with as much urgency as any dread disease.

Precise figures are not available, but there are now perhaps 180 to 200 million firearms in the United States, of which 55 to 60 million are handguns. In the wake of the increasing incidence of gun-related violent crimes and accidental and intentional deaths and injuries, laws have been enacted to control and/or discourage private gun ownership and especially to eliminate guns from the hands of the criminals.

Gun control proponents contend that the increased rates in firearm-related homicide and suicide are related to the increasing availability of firearms. Nationwide, firearms account for 53 percent of all homicides and 57 percent of all suicides. Moreover, high rates of firearm homicides, suicides and unintentional deaths correlate with high regional or local rates of gun ownership. Proponents also contend that guns produce more crime than they prevent. Unfortunately, there is no way of determining how many crimes may have been deterred because of civilian gun ownership. (A survey would be possible, using a sampling frame of the National Opinion Research Center at the University of Chicago. [Personal communication, G. Wintemute, M. D., August 3, 1987])

Gun control opponents argue that such laws are an abrogation of the citizens' rights under the U. S. Constitution to bear arms in peacetime. They also cite data showing that handguns are not a major cause of injuries and death, especially when compared to cardiovascular disease, cancer, diabetes and accidents caused by automobiles, falls, drowning and fires. However, data from the table that follows would indicate otherwise. In a recent symposium on the subject of gun control, Kaplan raised a number of questions that bear consideration, for example: What effect would the complete absence of guns have on domestic violence or "predatory crimes"? Would the laws, even if enforced successfully and completely, reduce crimes by those who are the greatest threat to society? If only some firearms were less available, might not criminals turn to unrestricted weapons, such as shotguns and rifles — probably sawed-off for reason of concealability — which are considerably more lethal than handguns? And if entirely deprived of guns, might not assailants use another type of weapon and do as much damage?

Guns — both handguns and long guns — are irrefutably extremely dangerous and are capable of causing unacceptable and unnecessary numbers of injuries and fatalities even when used by responsible persons. If

Twelve Leading Causes of Death in the United States, 1983

ALL CAUSES	2,019,201
Heart disease	770,432
Cancer	442,986
Stroke (CV disease)	155,598
ACCIDENTS (all causes)	92,488
Motor vehicle	44,452
Falls	12,024
Drowning	6,353
Fires, burns	5,028
Ingestion of food, other objects	3,387
Firearms	1,696*
(said to include some 500 handgun and 300 hunting accidents)	
Pneumonia	54,423
Diabetes mellitus	36,246
Suicide (all means)	28,295
Firearms-related	16,600*
Chronic liver disease, cirrhosis	27,266
Atherosclerosis	26,371
Homicides	19,530
Firearms-related	12,040*
Perinatal conditions	19,310
Nephritis, nephrosis	18,998
TOTAL FIREARMS-RELATED DEATHS	32,099

*Another 257 deaths were due to legal intervention and 507 were undetermined (i. e., either accidental or intentional).

society hopes or intends to reduce the number of firearm-related injuries and deaths significantly, it should be willing at least to remove guns — especially handguns — from the hands of persons who are a threat to society and to remove from society those persons who threaten the public with guns or other lethal weapons. Meanwhile, educating rightful firearms owners and users in the proper handling and storage of their weapons must continue, an action that may help to reduce unnecessary deaths and injuries.

EXTENT AND CONSEQUENCES OF GUN-RELATED CRIME AND VIOLENCE

Death

In 1983, firearms were ranked among the 12 leading causes of death in the United States, and, compared to all other causes of accidental death, firearm accidents ranked among the top ten. Precisely where firearm accidents rank is debatable because of differences in definitions and reporting.

The number of fatal firearm accidents among U. S. civilians, according to the "Vital Statistics of the United States, 1936-66," held near-steady at approximately 2,200 per year until 1966; the declining rate (from approximately 2.2 per 100,000 to 1.4 per 100,000) was balanced by the increase in population

December 1987

Scientific Affairs - A

growth. The number of deaths annually increased to 2,400 in 1966 and to 2,900 in 1967. The increase in the number of firearm-related homicides closely paralleled the increase in the number of all homicides from 1962 to 1968.

Kellerman and Reay studied the epidemiology of deaths due to firearms in the home by reviewing all gunshot deaths in Washington state from 1978 to 1983. Of the 743 firearm-related deaths - 70.5 percent of which were caused by handguns - 398 (54 percent) occurred in the home where the firearm was kept, and only 9 of the 398 (2.3 percent) were justifiable homicides. In other words, for every firearm homicide related to self-protection, there were 1.3 accidental deaths, 4.6 criminal homicides and 37 suicides.

An analysis of 26,442 firearm deaths among California residents from 1977 through 1983 disclosed that firearms were the number one cause of death for certain groups of people in that state: black males aged 25 to 34 years and females aged 15 to 24 years. Firearms were among the top ten causes of death for the state as a whole; moreover, its firearm homicide, suicide and unintentional death rates were similar to the median for all states.

In another study, the accidental firearm fatality rate increased threefold in Cuyahoga County, Ohio, from 1967 to 1973. These deaths, which occurred most commonly in those aged 25 to 34, were more frequent in the central city (Cleveland) than in the suburbs, usually took place within the home, and were more prevalent among males, especially nonwhites. About one-half of the adults had been drinking alcohol at the time. The authors of the study were of the opinion that the frequency of fatalities was related to the increase in availability of handguns (one retail dealer is said to have been selling from 30 to 40 handguns per day, seven days a week) and that the presence of the loaded weapon was more likely to cause an accidental death than to kill an intruder (about 41 percent of the accidental deaths for children up to age 15 were self-inflicted; about 70 percent of accidental deaths in adults were self-inflicted).

When Rushforth, et al analyzed homicide patterns in Cuyahoga County, Ohio, for 1958-74, the trends noted were consistent with those in other U. S. metropolitan counties, and the increased use of handguns was the factor most consistently associated with those trends. Firearms were used more frequently and firearm deaths were more prevalent than other modes of killing males (i. e., by cutting or piercing weapons) but there was a greater relative increase in homicides using objects other than firearms and knives among white women in cities. Although the homicide rate increased during 1958 to 1974, the proportion of white male felonious homicide victims killed by firearms rather than other weapons was constant at about 76 percent, but the rate of killings increased by 600 percent. Overall, the increase in homicide rates was not believed to be due solely to an increase in firearm deaths.

An examination of firearm fatalities in South Carolina from 1970 to 1978 disclosed 5,808 accidental, homicide, suicide or undetermined deaths, for an average incidence of 645 fatalities per year, or a rate of 23.4 per 100,000 population. In 1975, firearms were the sixth leading specific cause of all deaths - a rate of 2.9 percent. Significant declines in the fatality rates during the 1970s was allegedly due to decreases in the rates for nonwhites.

Fatalities in Children: One of the more grievous aspects of handgun violence is the fact that children are very often the victims of fatal gunshot wounds, either intentionally or accidentally self-inflicted or as innocent bystanders in scenes of domestic or street violence. Schetky has stated that gun accidents are the fifth leading cause of death in young children.

Most unintentional firearm deaths among children younger than 15 years were traced to loaded and unlocked weapons used in play. The 88 cases in one study represented 64 percent of all unintentional firearm deaths and 19 percent of all firearm deaths in California from 1977 through 1983. The shooter was another family member in 24 percent of the incidents and a playmate in 35 percent; 70 percent were boys aged 10 to 14 years. The authors added that unintentional deaths of friends and family members in the home were up to six times more common than shootings of criminals.

To verify the extent of the firearms hazard in their community, Patterson and Smith surveyed 150 families who attended the pediatric clinic at the University of Texas Medical Branch, Galveston. The authors found that 38 percent of these families had at least one gun in the home; 55 percent in this group said that their guns were always loaded and 10 percent added that their weapons were loaded, unlocked and within reach of a child.

Of the 210 cases of accidental gunshot deaths (39 percent were with handguns) in North Carolina from 1976-1980, 94 were self-inflicted and 116 were inflicted by others. Most of the victims were white males, and 31 percent were under age 15; in 16 percent of the accidents involving children, the victims were playing with guns, while in 14 percent the weapons were dropped or mishandled.

The Paulson and Rushforth review of homicides in Cuyahoga County, Ohio, between 1958 and 1982 disclosed that more than 15 percent of children less than 4 years old, 49 percent of those 5 to 9 years old, and 63 percent of those 10 to 14 years old die of firearm injuries, a little more than 55 percent of which are due to handguns.

Suicides: Depression and chronic alcoholism are reported to be the major reasons Americans consider suicide. As of 1982, over 28,000 Americans per year committed suicide, more than half (59 percent) were committed with firearms, and a very significant proportion involved youths and the elderly. Almost 50,000 youths between 15 and 24 years old committed suicide in the United States from 1970 to 1980; the number and rate was twice as high for young adults (20 to 24 years) as for teenagers (15 to 19 years), and the greatest proportion of suicides among both males and females was committed with firearms. The firearms suicide rate among people of both sexes aged 15 to 24 years roughly paralleled the corresponding rate by all other means, but it increased by 139 percent from 1933 to 1982 (for all other means, the rate increased only 32 percent). Beginning in 1970, however, the firearms suicide rate for those in this age group, especially males, rose dramatically compared to the rise by other means — about three times faster for 15- to 19-year-olds and ten times faster for 20- to 24-year-olds. One plausible explanation for the rise has been a concomitant increase in the availability of firearms. However, much of the available data are inadequate for anything more than a suggested causal relationship, in part because statistics on suicide are underestimated. Firearms have been the more traditional method of suicide for 10- to 14-year-old males and 10- to 24-year-old females and are even more favored today by females. Overall growth in suicide rates has slowed since 1980, and those related to use of firearms are only slightly higher than those caused by other means.

The same authors also investigated specific suicide methods among adolescents by breaking the data down into five-year age groups rather than the usual ten-year grouping. Boyd and Moscicki urge physicians treating depressed or potential suicide patients to inquire about and to prevent access to weapons.

Markush and Bartolucci compared the prevalence of firearms with the regional incidence of suicide and determined that a significant demographic relationship between firearms and suicide applied only to white males.

The availability of alcohol and the increasing prevalence of its abuse may also be a significant reason for the rising suicide rate among minors. From 1960 to 1983, firearms victims 10 to 19 years old in Allegheny County, Pennsylvania were about five times more likely to have been drinking beforehand than non-firearm victims.

For anyone intent on suicide, firearms are an assured means of death; about half of the victims choose this method. Had these same persons resorted to less instantly lethal means because fewer or no guns were available, their lives may have been saved. A limited number of those who had received speedy emergency treatment were glad to be alive and may not try again. Hanging, asphyxiation and drowning can be just as irreversible as using a gun if intervention measures are not applied in time, so it does not necessarily follow that the number of suicides would be reduced significantly because of fewer available firearms as

December 1987

Scientific Affairs - A

as persons intent on dying can find a lethal means. Availability is probably a big factor in those with a highly impulsive nature - in whom thoughts of suicide occur less than 24 hours before the event.

Injuries

There are virtually no reliable data available on the number of nonfatal firearm injuries because of errors and reporting system incompatibilities; the data that do exist are often misclassified or are incompatible from one system to another. Nonfatal firearm injuries are presumed to greatly outnumber firearm deaths. In a relatively small study, Waller and Whorton found that 6 percent of the unintentional gunshot wounds were fatal, and this figure is probably little different today. In 1968, nonfatal firearm injuries were estimated to be three times more common than firearm deaths; in 1972, the ratio was 5:1. The "best guess" of Wright and Rossi for 1975 was 170,000±75,000 injuries, and 30 times more injuries were inflicted by knives and other penetrating weapons than by guns. In the absence of an adequate database, only the crudest estimates are available on which to formulate legislative policy and to reform society.

Inadequate government funding can be blamed for much of the lack of research and data collection. The disparity in the allocation of federal grant money is stressed in Jagger's comparison of National Institutes of Health research grants for firearm injuries versus five "low-frequency infectious diseases" (LID) (i. e., cholera, diphtheria, polio, congenital rubella syndrome and rabies): there were more than 198,000 firearm injuries compared to 17 cases of LID, yet LIDS received 19 NIH grants while firearm injuries received none.

An early study from California disclosed that only motor vehicle crashes and falls surpassed firearms as a cause of spinal cord injuries. At the Rehabilitation Institute of Chicago, however, admissions for treatment of spinal cord injuries from gunshot wounds (24 percent) exceeded those due to auto accidents (20 percent).

RELATIONSHIP BETWEEN FIREARMS AND VIOLENCE

According to Kleck, there is little evidence to show that the possession of a gun will trigger the aggression of its owner. Instead, the gun, especially insofar as robberies are concerned, may inhibit as well as stimulate aggression: He contends, for instance, that robbers with guns are less likely to assault their victims than if armed with other types of weapons. Weak assailants are more apt to use guns when their intended victims are stronger than they are (for instance, women against men, elderly against young). Kleck also believes that it may not be entirely plausible to conclude that guns are really more deadly than, say, knives, because the gun may be used in situations where the intent is to inflict more serious bodily harm. Consider, however, the findings from a study of 1,639 cases of interpersonal violence in Denmark: 60 percent of the incidents involving firearms were lethal and no more than 7 percent involving knives were lethal. These figures are supported by Newton and Zimring, who have asserted that guns are five times more likely to result in death than knives.

Residential crimes have been increasing sharply in line with firearms in the home, which may indicate that guns in the hands of homeowners does not necessarily deter crime; more likely, the opposite is true. Incidents involving civilians using guns against criminals, though highly publicized by the media, may be based on inadequate data. Unpublished computer counts by the Federal Bureau of Investigation in 1983 indicate there were 490 justifiable (i. e., "excusable") homicides by civilians (422 by firearms) during 1981; there is no way of knowing how many of these were in self-defense because data of this type are not collected either. In Detroit alone, of 297 excusable homicides, 124 were justifiably committed by civilians and only a very small number of these were believed to be accidental.

Accidental deaths (25) from home firearm accidents in Detroit in 1967 exceeded the number of residential robbers and burglars killed in four and one-half years (23). One argument states that if homeowners did shoot and kill some burglars and robbers, one could infer that robbers might perceive an armed victim

as a threat and avoid him; burglars would not expect to have a confrontation. On the other hand, both burglars and robbers would have all the more reason to carry guns if they expected their victims to be armed.

Business burglaries are more prevalent nationwide than robberies, according to the Small Business Administration; usually the crime takes place when the premises are not occupied by guards or operating personnel, in which case guns would offer no protective value.

EDUCATIONAL PROGRAMS TO REDUCE FIREARM INJURIES AND DEATHS

Numerous organizations have developed, or are in the process of preparing, educational materials and programs on the proper storage and handling of firearms. The largest group, the National Rifle Association (NRA), supports more than 2,000 civilian rifle clubs and trains more than 96,000 teenagers annually. The American Legion is now offering the NRA's basic firearms education courses at its local posts.

The Police Executive Research Forum and the Handgun Information Center (HIC) are nonprofit organizations dedicated to public information and education about handguns and handgun violence. One of the most ambitious recent community education projects was developed jointly by these two organizations. A citywide campaign was conducted in Charlotte, North Carolina during the entire month of April 1985. Program planning and post-critique, including a discussion of difficulties that were encountered, are presented in the "Handgun Safety Campaign: Program Manual." For communities interested in this or similar programs, HIC will provide partial funding to "fill gaps in local campaign resources" and possibly to match local funds. HIC also will provide copies of its brochure and news media materials to law enforcement agencies at nominal cost.

The Foundation for Handgun Education, another nonprofit educational organization dedicated to reducing handgun violence, operates in conjunction with the National Coalition to Ban Handguns. The coalition is composed of 31 national educational, religious, medical and professional organizations whose common goal is to prevent needless injuries and loss of life from handgun violence. The foundation also acts as a clearinghouse for firearms litigation information. The foundation has recently begun in Cleveland phase one of a national education campaign to heighten the public's awareness of handgun risks and to "change the attitudes and behaviors of the American people." This city was selected as a marketing research model because it has a high incidence of handgun-related violence.

Effectiveness: The Charlotte program was evaluated by Vogel and Dean who tested its effectiveness against five hypotheses. This program, of questionable merit because it used nonstandard methods and relied on self-reporting of personal behavior, showed statistical significance in only one of the five hypotheses, i. e., those persons exposed to the campaign were more likely to lock up their guns. Most of the controversy raised by the citizens of Charlotte dealt with storing the guns and ammunition in separate locations as a means of optimum safety.

Wintemuth and Teret believe it unlikely that "expanded educational efforts to promote the safe use of firearms will lead to significant future reductions in firearm deaths," because more than 95 percent of the firearms incidents are intended to do harm.

CRIME DETERRENT LEGISLATION

Legislative Efforts to Control Possession of Handguns

More than 20,000 federal, state and local gunlaws in the United States deal with the sale, distribution and use of firearms — more than anywhere else in the world. Most states have some form of firearm control; Massachusetts passed the first law in the 1600s, Kentucky in 1813, Indiana in 1819, and Arkansas and Georgia in 1837.

Over the years, a number of polls have shown that the general population is in favor of controls, yet Congress usually has responded only after sensational acts of violence have occurred. Most of the proposed legislation, especially relating to handguns, has encountered stiff opposition and has been either defeated entirely or watered down to the point of ineffectual control. More important, most gun-control legislation has been aimed at the use of guns after they have been placed in circulation, not before their introduction in the market. The National Firearms Act of 1934, for example, was enacted during the reign of the Capone era mobsters to cope with the civilian ownership of "gangster-type" automatic weapons; however, it emerged as a tax measure. The Federal Firearms Act of 1938 regulates interstate shipment and receipt of firearms. The Omnibus Crime Control and Safe Streets Act of 1968 and the Gun Control Act of 1968 were prompted by assassinations in the 1960s. (A detailed discussion of the scope and frailties of legislation and its administration are presented by Newton and Zimring [Federal Firearms Laws]; a similar discussion is presented for foreign firearms laws [Foreign Firearms Laws].)

The nation's first gun control laws and many of today's municipal laws proscribe the "place and manner" of carrying and using firearms to prevent illegitimate use. "Permissive" laws rely on ownership permits, which are denied to certain relatively small, definable groups who are presumed to be unacceptable risks to society. Unfortunately, purchasers are not required to prove they are not in a high-risk group. Thus, an alternative is a "restrictive" law that does require proof of character and a valid, justifiable reason for ownership. "Registration" complements the licensing process and is one of the cheapest options to administer, but it is not a popular approach and no one can be certain about how effective it will be. It is hoped that registered owners will be responsible about storage and transfer of their weapons in order that they not fall into the wrong hands. The "transfer-notice" in place of registration is meant to report whenever a gun is given, sold, lost or stolen. It is thought to be simpler and less burdensome to the owners and perhaps records would be cheaper to maintain and thus more feasible than registration. No one can be sure how effective compliance will be with either system. However, all of these controls will probably remain ineffectual as long as interstate traffic in arms sales continues.

Several legislative options have been proposed to correct inadequacies in the current situation, for example: (1) regulate the manufacture and importation of firearms and bar the interstate flow of firearms to "unqualified buyers"; (2) force dealers to verify a buyer's place of residence; (3) increase substantially the cost of a dealer's license fee; (4) require that all private sales be conducted through firearm dealers; and (5) hold firearms manufacturers, distributors and owners strictly liable when their weapons cause wrongful deaths and injuries.

Effectiveness: The Comptroller General's "Report to Congress" in 1978 on the effectiveness and costs of handgun control pointed out that there is "strong and widespread disagreement" about the effectiveness and costs of the various measures for gun control in the United States. The report analyzed the various means of reducing gun-related crime, the extent of which firearms were used in violent crimes, and the relationships between firearm availability, violent crime and handgun control.

The report found little solid data about the number of firearms and firearm owners in the United States, and only a few good empirical studies on evaluation of gun control laws. None of the studies showed that there was a decrease in the overall level of violence as attributable to gun control, and it was too soon to evaluate properly the influence of more severe and mandatory sentencing measures. Gun control did not seem to be the answer to national crime, for the "roots" of crime go deeply into the socioeconomic fabric of contemporary society.

At the time of the report, only 20 states and the District of Columbia attempted to screen for undesirable applicants - and even these methods were highly variable. Of the 20, only New York and Massachusetts required the applicant to prove his character and reason for ownership.

Baltimore's "buy-back" program from August to November 1974 (in which owners were given \$50 for each weapon turned in and a \$150 bounty was paid for information that led to a confiscation) was

analyzed after that program ended. Based on very limited data over a 17-month period, statistically there was no significant decrease in overall crime (i. e., murders, assaults, robberies and aggravated assaults) that could be attributed to the program, no lasting decrease in firearm assaults and robberies or aggravated assaults, and no appreciable drop in the rate of murders committed with firearms.

Even the most carefully drafted and enforced gun control laws have had a questionable impact on crime. Most, while still on the books, are obsolete, unenforced and unenforceable, undoubtedly because of a lack of uniformity nationwide and the inability of any or all of them to halt the interstate transport of arms. According to the Bureau of Alcohol, Tobacco and Firearms' Project CUE, controls do limit the availability of guns in those states with restrictive laws but the nonuniformity of the laws and the ineffectiveness of bans on out-of-state sales does not entirely prevent the import of weapons. Authors of Project CUE contended that criminals may have been forced to use older weapons, thus suggesting that the project had some effect, but more extensive analysis would be necessary to confirm this contention.

Current state legislation is a "hodge-podge," full of loopholes, and lacks effective enforcement. The Gun Control Act of 1968 offers little improvement: It cannot halt interstate movement of arms because it does not require dealers to verify the buyer's place of residence, and it is unable to prevent nondealers from buying arms in one state and transporting and selling in another state. Furthermore, any adult who claims some "address for business" can pay \$10 a year and obtain a federal firearms dealer's license. For private sales, no licenses are required.

At least 70 percent of the U. S. population is ruled by gun purchase or acquisition statutes, and 66 percent are subject to a police check either before or after the purchase of a handgun. Yet the literature abounds with accounts of ineffectual enforcement. In Illinois, for example, most gun-related arrests from 1972 to 1976 were for "unlawful use of a deadly weapon"; in actuality, the culprits were apprehended for another infraction, and the offenses were adjudged primarily for carrying a concealed weapon. Only about 12 percent of the persons convicted from 1968 to 1973 under Chicago's gun registration ordinance (in addition to Illinois' "fairly strict" license law) served time in jail, the mean term being 36 days. About a tenth as many were convicted for unlawful possession and about a fifth for not having a firearms owner's license. Based on an estimated 1.7 million gun owners in Illinois, about 28 percent do not have gun licenses; therefore, about 500,000 persons could be arrested on that charge alone. The situation in New York City, which — like Chicago — allegedly has an "extremely strict" gun control law, is no better.

The bans enacted in San Francisco in 1982 (later struck down by an appellate court) and Morton Grove, Illinois (in 1981), though not total prohibitions because they covered only handguns, allowed firearms to be kept at home or at work. San Francisco's law, in response to the assassination of a mayor and councilman, would seem to be a flat prohibition on the possession of any handgun and with no restriction on long guns; actually, its many exceptions that are subject to interpretation, such as private citizens of "good moral character," "for good cause" and for "business purposes," provide many loopholes for legitimate ownership. Morton Grove's law was prompted by an application to open a gun shop in the community. This law survived both state and federal courts, but it too has a number of exceptions, the broadest of which pertain to police officers and "special agents."

Overcrowded prisons, overburdened prosecutor case loads, excessive paperwork and other priorities for limited resources are blamed as the reasons for enforcement laxity. For example, Chicago has a special court for gun cases, but its judges are reluctant to sentence a simple gun violator to prison — especially a "respectable citizen" — when, for lack of space, a murderer or rapist must be released.

Legislation Efforts to Increase Penalties

Inasmuch as handgun bans have turned out to be economically and politically infeasible, some gun control advocates urged — and legislation became focused on — more severe punishment for persons who committed crimes using guns.

December 1987

Scientific Affairs - A

The Bartley-Fox Amendment of 1974 to Massachusetts General Law imposed a mandatory one-year sentence — without suspension, probation, parole or furlough — on anyone convicted of illegally carrying a gun (i. e., without a proper identification and authorization to possess and/or carry). Its intent was to require a finding and to prevent plea bargaining and a judge's imposition of a lesser sentence for that which was mandated. In theory, judges and parole boards were no longer able to decide the length of sentence of the offender; the effect, however, was to shift discretion about guilt or innocence from the courts to the arresting officers and district attorneys, who became more selective of persons to be frisked, reported, arrested and/or charged in order to avoid incurring the wrath of the "otherwise innocent."

Other states — Connecticut, Hawaii, Maryland, New Hampshire — and the Virgin Islands have emulated the Bartley-Fox Amendment. Only Maryland (most like Massachusetts but without a mandatory penalty, in general, on the first offense and an escalating sentence with prior convictions) attempted to eliminate most of the judicial discretion. Hawaii perhaps has the harshest law: a two- to five-year sentence, with no probation and no required finding.

The Michigan Felony Firearm Statute (enacted about 1979) mandatorily added two years to the sentence of a convicted felon who possessed a firearm during the commission of a crime. If strictly enforced, this law should have obviated the shortcomings inherent in the Bartley-Fox Amendment. However, in practice, no differences were observed in the length of sentences imposed between crimes with or without guns; the courts merely adjusted the sentence of the primary felony downward to compensate for the mandatory two-year addition.

California Penal Code 12022, enacted in 1977, is similar to Michigan law: it added a one-year prison sentence to anyone, including accomplices, armed with a firearm while committing or attempting to commit a felony, and two years were added if the weapon was actually used in the crime. However, as in Michigan, for some unclear reason the courts in California have refused to abide by the letter of the law. California's law is not used by the courts except against the most serious of repeat offenders and then probably as a means of "throwing the book" at them. Again, perhaps judges resent this incursion of their turf or they may believe that other weapons, such as knives and clubs, used in crimes of assault (i. e., homicides and rapes) are "messier and more heinous" than firearms. In other crimes, it has been reasoned that these types of laws interfere with the plea-bargaining process.

Based on experience in New York, harsh or mandatory prison sentences are not effective deterrents against drug and other felony offenses; neither have they reduced the flow of illegal drugs or the overall level of serious crimes. Consider too, that police are unable to solve the most serious crimes, a large number of which are never reported. Few felons are even arrested, and even fewer are convicted. Then, too, the costs could be staggering: New York City estimated the costs of operating its mandatory prison law in 1974 at close to \$20 million for personnel and \$30,000 per cell for construction.

Inasmuch as the criminal justice system is already overcrowded, this alternative to gun control may be doomed to failure also. The Justice Department's Bureau of Justice Statistics has recently estimated that the federal prison system operated at 27 percent to 59 percent above capacity at the end of 1986. The number of inmates at federal and state prisons reached an all-time high of 546,659, an increase of 217,000 since 1980.

Apart from prison overcrowding, leading national crime commissions oppose mandatory sentences for the following reasons: (1) Judges cannot base sentences on what they perceive as "individual factors" and may, therefore, dismiss or acquit the offender or juries may fail to convict the offender because they feel the mandatory sentence is inappropriate to the individual or crime. (2) Such sentences may seriously interfere with bargaining attempts to obtain a plea of guilty and thereby induce judges and prosecutors to use *sub rosa* means to avoid mandatory sentences. (3) The courts, as well as the police and prosecuting attorneys, may simply refuse to enforce or may even misconstrue the law. (4) Incarceration is ineffective and may even be counterproductive when it is applied to all crimes and most offenders.

Boston Youth Program

A demonstration project, titled the Boston Youth Program (funded by the Robert Wood Johnson Foundation) experimented with role-playing techniques as a possible means of handling depression and of solving disputes without violence (both depression and violence being potential precursors of firearm injuries, suicides and homicides). The program was developed for tenth-grade health students in four Boston schools and one community agency. Eighty-seven percent of its participants enjoyed the program, 73 percent found it helpful in dealing with depression, and 63 percent found it helpful in handling anger.

OTHER MEANS TO REDUCE HANDGUN VIOLENCE

Improved Weapons Design

Irrespective of the success or failure of all other measures to reduce gun-related deaths and injuries (i. e., gun control and crime deterrent laws, public education), it would seem prudent to require improvements or modifications to firearms to make them as safe as humanly possible: improvements should, as a minimum, indicate that the weapon is loaded or ready to fire, prevent accidental discharge, and be less concealable. Redesigning the weapon for safety will be far simpler than attempting to change the behavior of the gun owner, bearing in mind that children lack an appreciation for and the consequences of the dangers of firearms. If the U. S. government can legislate and enforce child-restraint aspirin bottles, why can it not do the same to child-proof handguns?

Tort Liability

Some persons now advocate recourse to product liability litigation to reduce firearm crime and violence and their associated injuries and deaths. An entire symposium was devoted to the discussion - pro and con - of a manufacturer's liability and victim's recovery via tort law, with due consideration for the immediate victim as well as the bystander. (The case of James Brady vs John Hinkley and R. G. Industries was also discussed in the symposium's proceedings.)

Teret and Wintemute urge that handgun manufacturers be made liable and financially responsible for injuries arising from their products, even apart from the fact that the weapons function as intended and their dangers are not hidden. The authors contend that the manufacturer should know and have foreseen the public health significance of its product from the extensive epidemiologic data and, therefore, should be presumed culpable. Furthermore, the manufacturers should be responsible for acts committed by their products, inasmuch as the utility and social benefits of their products are far outweighed by the potential risks of injury and death.

"There is no greater perversion of the free enterprise system than that which seeks to reap profits from human suffering. Who should bear the cost when the products sold by these merchants of destruction accomplish exactly what they are intended to accomplish? It's time to make them pay for the wrongs which a sane society can no longer tolerate. If the notions of morality, conscience and common sense are not enough to constrain these corporations, then just maybe redistributing some of their dollars to the innocent victims of crime will suffice." (W. Turley, C. Harrison, Strict Tort Liability of Handgun Suppliers)

Three developments in the strict liability law may have "set the stage" for its application to handgun suppliers: (1) bystander recovery, (2) foreseeable environment of use, and (3) the question of defect. A large body of law relating to motor vehicles (and others) parallels the situation with handguns and may furnish adequate legal precedence.

December 1987

Scientific Affairs - A

Turley, et al, contend that strict liability or negligence suits that force handgun manufacturers, distributors and owners to compensate victim(s) for their wrongful gun-related injuries or deaths would make it uneconomical to manufacture, sell or use handguns. Halbrook is of the opposite opinion, in that the principles of strict liability or negligence per se cannot be applied when the defendant has complied with existing statutes. On the other hand, in Kelley, et al vs R. G. Industries, Inc., et al, the Maryland Court of Appeals ruled in 1985 that the Saturday Night Special was an "unreasonably dangerous product, and its manufacturers and distributors may be liable for harm that results from its use." R. G. Industries, one of the primary manufacturers of these weapons, was finally forced out of business.

OTHER EMERGING ISSUES - PLASTIC HANDGUNS

Wintemute, et al, have called attention to the recent introduction of plastic handguns that, if unrestrained, may pose an even greater public health and security risk. Promoted as "dishwasher safe" and "for women to use as a self-defense weapon," these weapons not only may end up being mistakenly used by children as toys, but they also may be used by terrorists to evade airport security measures, inasmuch as they are nonmetallic and transparent to x-ray radiation. Several bills attempting to cope with this issue have been introduced in the 100th Congress, i. e., HR 84, HR 155, HR 1005 and S 465.

SUMMARY AND RECOMMENDATIONS

The Council on Scientific Affairs recognizes that uncontrolled ownership and use of firearms, especially handguns, is a serious threat to the public's health inasmuch as the weapons are one of the main causes of intentional and unintentional injuries and deaths. The Council, therefore, recommends that the American Medical Association:

1. Encourage and endorse the development and presentation of safety education programs that will engender more responsible use and storage of firearms;
2. Urge that government agencies, the Centers for Disease Control in particular, enlarge their efforts in the study of firearm-related injuries and in the development of ways and means of reducing such injuries and deaths;
3. Urge Congress to enact needed legislation to regulate more effectively the importation and interstate traffic of all handguns;
4. Urge the Congress to support recent legislative efforts to ban the manufacture and importation of nonmetallic, not readily detectable weapons, which also resemble toy guns;
5. Encourage the improvement or modification of firearms so as to make them as safe as humanly possible; and
6. Encourage nongovernmental organizations to develop and test new, less hazardous designs for firearms.

(References pertaining to Report A of the Council on Scientific Affairs are available from the Office of Science and Technology.)

Senator DODD. But, again, I want to thank all of you for being here today and I hope these hearings will at least contribute in some small measure to the educational effort in this week, Safe Kids Week, when we try and reduce this, the single largest cause of death and injury to the children, avoidable injuries in our society. It is one we will work on very hard, and we thank you for the efforts that you have been engaged in for years.

This subcommittee will stand adjourned until further call of the chair.

[Whereupon, at 12:14 p.m., the subcommittee was adjourned.]

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